Supplemental Material S2. Data collection forms.

## Visit 1

1-1 Phone screen
1-2 Study Consent Form
1-3 HIPAA Form
1-4 Permission to contact for research
1-5 Demographic Form
1-6 Black Binder
1-7 Red Binder
1-8 Blue Binder
1-9 Rx Pad
1-10 Visit 1 Questions
1-11 Hearing Aid Decision Form for CTC
1-12 Visit 1 Hearing Aid Selection Survey
1-13 User Guide
1-14 Hearing Aid Case Checklist

Visit 2

2-1 Aided CST \#1
2-2 Visit 2 Hearing Aid Selection Survey
2-3 Hearing Aid Inspection Checklist
2-4 Visit 2 Checklist
2-5 Instructions for Loudness Test
2-6 Categories of Loudness
2-7 Datalogging
2-8 Aided CST \#2
2-9 Hearing Aid Decision \#1
2-10 Audiogram
2-11 Unaided CST
2-12 Mini Mental State Exam
2-13 Case History
2-14 Hearing Aid Status \#1

Visit 3

3-1 Visit 3 Checklist
3-2 Orientation Checklist

Visit 4

4-1 Aided CST \#1
4-2 Hearing Aid Inspection Checklist

4-3 Aided CST \#2
4-4 Hearing Aid Decision
4-5 Datalogging
4-6 Visit 4 Checklist
4-7 Hearing Aid Adjustment Log
4-8 Hearing Aid Questions
4-9 Hearing Aid Status \#2
4-10 Exit Form

Tablet Forms

T-1 Unaided PHAP
T-2 Unaided HHIE
T-3 Aided PHAP
T-4 Aided HHIE

Miscellaneous

M-1 Unscheduled Visit Checklist

Name:
Age: $\qquad$ Date: $\qquad$

## How did you find out about our study?

## Mailing Address:

$\qquad$
Phone: $\qquad$ Email: $\qquad$

Hello. This is (name) from the Audiology Research Lab in the Department of Speech and Hearing Sciences at Indiana University Bloomington.
(If follow-up from voicemail: You had previously responded to an ad about this study.)

## Do you have a few minutes to hear about a new study in our lab?

- If yes, go on to next section.
- If no, "is there a better time to reach you or do you have an email address we could send the information to?"- take down information and either call back or email.

We are currently enrolling participants for a study that examines whether people are able to select their own hearing aids themselves and save money in the process.

Does that sound like something that might interest you?

- If yes, go on to next section.
- If no, "thank you for your time, have a nice day."

In order to participate in this study, you must:

- Be between 55-79 years old
- Be a native English speaker
- You must be a new hearing aid user which means that you have never worn hearing aids or have only worn them for a short period of time (for less than 6 weeks, more than 1 year ago).
- You also must have the ability to read 18 point typed font. 18 point font is larger than most typed documents.
- Be willing to purchase hearing aids.


## Would you like to hear more about the study?

- If yes, go on to next section.
- If no, "thank you for your time, have a nice day."

Each participant will attend two to four visits. The first and second visits each last approximately 2 hours. If additional visits are needed, those will last between 1-2 hours At the first visit, you will come to the research clinic at IU Speech and Hearing to select your hearing aids yourself following instructions provided. After wearing the hearing aids for about four weeks, you will return to the research clinic for a
second visit to have your performance with the hearing aids evaluated. At the second visit, you will also receive a full hearing evaluation and decide whether you want to keep your hearing aids.

The initial cost of the hearing aids is $\$ 600$. For completion of Visit 1 you will receive $\$ 50$ off of the price bringing the total due at Visit 1 to $\$ 550$. We are not able to accept credit cards for payment, therefore the $\$ 550$ will need to be in the form of cash or check.

For completion of Visit 2, you will receive a $\$ 50$ cash payment. This effectively reduces the price of the hearing aids to $\$ 500$, which is a $16.7 \%$ discount off of the price of these good-quality devices that are made by a major manufacturer. The hearing aids have a 1 year warranty.

Consistent with standard clinical practice, participants will have a 4-week trial period after which the hearing aids may be returned for a full refund, less any credits or payments received by you previously for your participation.

## Does this still sound like something you might be interested in?

- If yes, go on to next section.
- If no, "thank you for your time, have a nice day."

Visit 1 Date: $\qquad$ Time: $\qquad$

## Contact log

## Scheduled on calendar

$\qquad$
Letter sent

# INDIANA UNIVERSITY INFORMED CONSENT STATEMENT FOR 

Evaluating Hearing Aid Service-Delivery Models

You are invited to participate in a research study of examining different ways of providing hearing aids to adults with hearing loss. You were selected as a possible subject because you responded to an initial advertisement for this study and were subsequently found to be eligible for the study. Please read this form and ask any questions you may have before agreeing to be in the study.

The study is being conducted by Larry E. Humes, Distinguished Professor, Department of Speech and Hearing Sciences, Indiana University. It is funded by the National Institutes of Health (NIH).

## STUDY PURPOSE

The purpose of this study is to examine the benefits resulting from consumer's selection of their own hearing aids. Due to the nature of the study, we are not able to provide you with the full details of the study at this time, but will provide additional information at the conclusion of the study.]

## NUMBER OF PEOPLE TAKING PART IN THE STUDY

If you agree to participate, you will be one of about 40 subjects who will be participating in this research.

## PROCEDURES FOR THE STUDY

If you agree to be in the study, you will do the following things:
Each participant will attend two to four visits. At the first visit, you will come to the research clinic at IU to select your pair of hearing aids yourself from among the three available choices following instructions provided. (You will also choose the color of your pair of hearing aids with each of the three pairs being available in beige, brown and grey.) After wearing the hearing aids for about four weeks, you will return to the research clinic for a second visit to have your performance with the hearing aids evaluated. At the second visit, you will receive an auditory test that requires you to listen and respond to words or sentences presented via loudspeakers under different listening conditions. Your responses will be recorded by the examiner using a written answer sheet. You will also complete two surveys about difficulties you experience in everyday listening situations. Just like any person purchasing hearing aids in the U.S., you will then be given the option to return the hearing aids, if desired, and receive a full refund of the purchase price of the hearing aids, less any credits or payments made to you for completion of test sessions. Finally, at the end of the second visit, you will receive a complete hearing evaluation.

The first and second visits each last between 1 and 2 hours and the second visit will be scheduled approximately 4 weeks after the first visit.

In this study, we are evaluating how well patients can select their own hearing aids. Consistent with standard clinical practice, participants will have a 4 -week trial period after which the hearing aids may be returned for a full refund, less any credits or payments received by you previously for your participation.

## RISKS OF TAKING PART IN THE STUDY

While on the study, the risks are minimal. Because you will be choosing your own hearing aids, it is possible you may chose a device that is not appropriate for your particular hearing loss. Outcomes may differ, being inferior for
some of the subjects because they will be choosing their own hearing aids. There is a potential risk of the hearing aid decreasing auditory awareness. Steps have been taken to minimize this risk. The devices to be fitted are "open-fit" devices which minimize plugging up the ear canal.

In addition, because hearing aids and eartips will be inserted into the subjects' ears, there is some minimal risk for transmission of infection. This risk will be minimized by the thorough cleaning of all hearing aids and eartips tried by the patient after each subject's use.

## BENEFITS OF TAKING PART IN THE STUDY

The benefits to participation that are reasonable to expect are outcomes of this investigation may aid hearing professionals in making decisions about how best to deliver hearing aids to adults with hearing loss. Subjects may also experience direct benefits through the use of hearing aids that counteract the effects of hearing loss.

## ALTERNATIVES TO TAKING PART IN THE STUDY

Instead of being in the study, you have these options: An alternative to participating in the study is to choose not to participate. If you do not participate, but are still interested in receiving hearing aids, you are welcome to do so at the IU Hearing Clinic, following normal clinical procedures, or elsewhere at your discretion

## CONFIDENTIALITY

Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Your identity will be held in confidence in reports in which the study may be published and databases in which results may be stored.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study investigator and his/her research associates, the Indiana University Institutional Review Board or its designees the study sponsor [National Institutes of Health, NIH], and (as allowed by law) state or federal agencies, specifically the Office for Human Research Protections (OHRP, etc., who may need to access your medical and/or research records.

A description of this clinical trial will be available on ClinicalTrials.gov, as required by U.S. law. This website will not include information that can identify you. At most, the website will include a summary of the results. You can search this website at any time.

## COSTS

Taking part in this study may lead to added costs to you or your insurance company. You or your insurance company will be responsible for the following costs: Having your ears cleared of wax at your physician's office or location of your choosing. You will not be responsible for these study-specific costs: Having your ears cleared of wax by the audiologists working on the study.
You will not be responsible for these study-specific costs: a complete hearing evaluation provided in Visit 2. You will be responsible for purchasing the hearing aids, if you wish to participate in the study. The cost for the pair of hearing aids is $\$ 600$, which is due at the completion of the first session.

## PAYMENT

You will receive payment for taking part in this study. You will be paid $\$ 50$ after the completion of Visits 1 and 2 of this study for a total payment of $\$ 100$. This amounts to $16.7 \%$ of the $\$ 600$ purchase price for your hearing aids. The first payment of $\$ 50$ will be applied as a credit toward the $\$ 600$ purchase price with the balance of $\$ 550$ payable at the end of Visit 1. The second payment, at the end of Visit 2, will be issued to you as a check for $\$ 50$.

## COMPENSATION FOR INJURY

In the event of physical injury resulting from your participation in this research, necessary medical treatment will be provided to you and billed as part of your medical expenses. Costs not covered by your health care insurer will be your responsibility. Also, it is your responsibility to determine the extent of your health care coverage. There is no program in place for other monetary compensation for such injuries. However, you are not giving up any legal rights or benefits to which you are otherwise entitled. If you are participating in research that is not conducted at a medical facility, you will be responsible for seeking medical care and for the expenses associated with any care received.

## CONTACTS FOR QUESTIONS OR PROBLEMS

For questions about the study or a research-related injury, contact the researcher, Larry Humes, at $\square$ or . If you cannot reach the researcher during regular business hours (i.e., 8 a.m. to 5 p.m.), please call the IU Human Subjects Office at

For questions about your rights as a research participant, to discuss problems, complaints, or concerns about a research study, or to obtain information or offer input, contact the IU Human Subjects Office at

## VOLUNTARY NATURE OF THIS STUDY

Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled. Your decision whether or not to participate in this study will not affect your current or future relations with the investigator(s).

Your participation may be terminated by the investigator without regard to your consent in the following circumstances: If it is determined that you have significant earwax buildup that interferes with test procedures and you choose to not have it removed.

If you withdraw or are terminated from the study before completion, your partial data may be used for data analysis unless you request that it not be used.

## SUBJECT'S CONSENT

In consideration of all of the above, I give my consent to participate in this research study.
I will be given a copy of this informed consent document to keep for my records. I agree to take part in this study.

Subject's Printed Name:
Subject's Signature:
$\qquad$
Date:
(must be dated by the subject)

## Printed Name of Person Obtaining Consent:

Signature of Person Obtaining Consent:
Date:

Introduction: You have the right to decide who may review or use your Protected Health Information ("PHI"). The type of information that may be used is described below. When you consider taking part in a research study, you must give permission for your PHI to be used and disclosed by the Research Team for the specific purpose of this research study.

What does this authorization relate to?
This authorization relates to the following study:
Larry E. Humes
1111007504
PRINCIPAL INVESTIGATOR (in charge of Research Team) IRB PROTOCOL \#
SPONSOR \# R01-DC011771-01
NAME OF RESEARCH PARTICIPANT
BIRTHDATE

STREET ADDRESS
CITY, STATE \& ZIP CODE
What information will be used for research purposes? The PHI used for this research study will include information that you provide to the Research Team and any data and reports created by the Research Team that may include this information. Your medical records will not be requested or otherwise accessed.

Who can access your PHI for the study? The principal investigator and research team may share my PHI (or the PHI of the individual(s) whom I have the authority to represent), with the following persons or groups for the research study: IU Institutional Review Board and its designees, Research Sponsor and its representatives, Research Organizations, the Department of Health \& Human Services or other US or foreign government agencies as required by law, and to the Food and Drug Administration (FDA) or a person subject to the jurisdiction of the FDA in order to audit or monitor the quality, safety or effectiveness of the product or activity.

The Research Team includes the Principal Investigator, his/her staff, research coordinators, research technicians and other staff members who provide assistance to the Research Team. If there is a Research Sponsor(s), this shall include: National Institutes of Health and any Research Organizations who provided assistance to the Research Sponsor(s) including, but not limited to:

Expiration date of this Authorization: This authorization is valid until the following date or event:


【 End of the Study
$\qquad$ $\square$ None; authorization is valid indefinitely

Efforts will be made to ensure that your PHI will not be shared with other people outside of the research study. However, your PHI may be disclosed to others as required by law and/or to individuals or organizations that oversee the conduct of research studies, and these individuals or organizations may not be held to the same legal privacy standards as are doctors and hospitals. Thus, the Research Team cannot guarantee absolute confidentiality and privacy.

## I have the right:

1. To refuse to sign this form. Not signing the form will not affect my regular health care including treatment, payment, or enrollment in a health plan or eligibility for health care benefits. However, not signing the form will prevent me from participating in the research study above.
2. To review and obtain a copy of my personal health information collected during the study. However, it may be important to the success and integrity of the study that persons who participate in the study not be given access until the study is complete. The Principal Investigator has discretion to refuse to grant access to this information if it will affect the integrity of the study data during the course of the study. Therefore, my request for information may be delayed until the study is complete.
3. To cancel this release of information/authorization at any time. If I choose to cancel this release of information/authorization, I must notify the Principal Investigator for this study in writing at: Department of Speech and Hearing Sciences, Attn: Dr. Larry Humes, 200 South Jordan Avenue, Bloomington, IN 47405. However, even if I cancel this release of information/authorization, the Research Team, Research Sponsor(s) and/or the Research Organizations may still use information about me that was collected as part of the research project between the date I signed the current form and the date I cancel the authorization. This is to protect the quality of the research results. I understand that canceling this authorization may end my participation in this study.
4. To receive a copy of this form.

I have had the opportunity to review and ask questions regarding this release of information/authorization form. By signing this release of information/authorization, I am confirming that it reflects my wishes.

Printed name of Individual/Legal Representative
Signature of Individual/Legal Representative
Date
*If signed by a legal representative; state the relationship and identify below the authority to act on behalf of the individual's behalf.
*Individual is: $\quad \square$ a Minor $\quad \square$ Incompetent $\quad \square$ Disabled $\quad \square$ Deceased
*Legal Authority:

| $\square$ Custodial Parent $\quad \square$ Legal Guardian | $\square$ Executor of Estate of the Deceased |
| :--- | :--- |
| $\square$ Power of Attorney Healthcare | $\square$ Authorized Legal Representative |
| $\square$ Other: |  |

[^0]
## PERMISSION TO CONTACT FOR OTHER RESEARCH PROJECTS

The Audiology Research Laboratory (ARL) is part of the Department of Speech and Hearing Sciences at Indiana University and often conducts research in conjunction with the I.U. Hearing Clinic. Researchers in the lab are continually trying to uncover new information about human hearing, better understanding of problems caused by hearing loss and new ways to help people with hearing problems. Research participants are scheduled for testing at their convenience and are provided with free parking. In addition, they often receive other benefits. For example, in several recent hearing aid research projects, participants have received discounts from $40-100 \%$ on the latest hearing aid technology.

If research studies arise in the future in the ARL, would you be willing to be contacted by a researcher to see if you are interested in participating in the project? If so, please check "Yes" below. If you check "Yes" below, you are just indicating a willingness to be contacted in the future and are in no way obligated to participate in a project until it has been fully explained to you and you agree to participate. If you change your mind and decide that you do not wish to be contacted, you may contact the director of the ARL, Larry Humes, to have your name removed from the list. A copy of this form is provided for your records. If you have any questions about this information, please contact Larry Humes
___ Yes, I am willing to be contacted in the future as a possible subject for research in this laboratory.
$\qquad$ No, I am not interested in being contacted in the future.

Participant's Signature

Examiner's Signature

## Date

Date

Phone number/e-mail address

## CD2 Demographic (Visit 1)

1) Gender (check one)
$\qquad$ Male
$\qquad$ Female
2) Ethnic Category (check one)
$\qquad$ Hispanic or Latino
$\qquad$ Not Hispanic or Latino
3) Racial Categories (check all that apply)
$\qquad$ American Indian/Alaska Native
$\qquad$ Asian
$\qquad$ Native Hawaiian or Other Pacific Islander
$\qquad$ Black or African American
$\qquad$ White
4) Date: $\qquad$
5) Grant Type: ABCD
6) Date of Data Entry Completion:


## OVERVIEW

## and

## HOW TO CHOOSE A

> COLOR FOR YOUR HEARING AID

You will now use the contents of these binders to assemble and select hearing aids for both of your ears, beginning with your right ear. A 5-10 minute instructional video will demonstrate the steps you will take.

Each hearing aid has been programmed to sound a bit differently (denoted by the $\mathbf{X}, \mathbf{Y}$, and $\mathbf{Z}$ ) and you will figure out which sounds the best to you, but all have the same basic features. The hearing aids are available in three colors (beige, brown, and grey). Your first task will be to pick the color you want. Then, you will assemble a hearing aid for your right ear and decide which programming suits you best by listening to provided sound samples with each of the different hearing aids ( $\mathbf{X}, \mathbf{Y}$, and $\mathbf{Z}$ ). Finally, you will repeat this assembling process for your left ear.

The pages in these binders will walk you through the necessary steps (steps 2-6) to choose a hearing aid for your right ear first and then your left ear (steps 25). After viewing the 5-10 minute instructional video, please complete the instructions on each page of the binders in order without skipping any steps.

## Parts of the hearing aid

TUBES


DOMES


## BODY OF HEARING AID

## 1. How to

## choose a color

## for your

hearing aid

You have a choice of three colors:


Steps for picking the color for your hearing aids (Steps A-E):
A. There are two mirrors for you to use: a pedestal mirror that has a magnified side and a large mirror on the wall to your right.
B. Look at the three trays of hearing aids. One tray contains 6 beige hearing aids, one contains 6 brown hearing aids, and one contains 6 grey hearing aids. Pull the color tray you think you would like closer to you.
C. Choose one of the 2 hearing aids labeled $\mathbf{X}$ from the color tray you have selected.
D. Look in the mirror, hold the hearing aid behind your ear and up to your hair, and decide if you like this color or not. Feel free to go back to one of the other trays if you are uncertain.
E. After you have picked the color that you like best, stack the other two trays and push them to the back of the table out of your way.

Note: Do not close the battery door to the hearing aids yet. You will be instructed to close it later. If it closes accidentally before instructed, just open it slightly.

Before you start putting together your hearing aid for each ear, it may be helpful to see the finished product. When you are finished, your hearing aid should look like this when all parts are assembled. See the display on the model ears for what it will look like on your ear in the end.

LEFT EAR


RIGHT EAR



Now you are going to make some decisions for each ear starting with your right ear.

After you have completed steps 2-6 in the red book for your right ear, you will then then do steps 2-5 in the blue book for your left ear.

Close this book and set it to the side. Pick up the red book and follow steps 2-6 to assemble and pick a hearing aid for your right ear.

## CHOOSING A HEARING AID FOR YOUR RIGHT EAR

## 2. How to choose <br> a tube and dome <br> for your right ear

## Men start with a red size 2 tube and a large dome.



Women start with a red size 1 tube and a medium dome.


MEDIUM DOME


There are two parts to the tube; the triangular adaptor (top portion) and the curved tubing. The triangular adaptor is currently attached to the tube, but it should remain attached to the hearing aid body during cleaning. Later, you should review the user guide for how to clean the tubes when necessary.


Steps for attaching the dome to the tube (Steps A-B): A.Push the dome over the ridged end of the tube. RIGHT EAR


# B. Make sure the dome is pushed onto the tube as far as it can go. 

RIGHT EAR


Steps for attaching the tube and dome to the body of the hearing aid (Steps A-D):
A. Find the triangular end of the tube. RIGHT EAR


# B. Find the grey screw on the top of the hearing aid body. 

## RIGHT EAR


C. Attach the two parts together. To do this, screw (clockwise) the triangular part of the tube onto the grey screw on the top of the hearing aid body. RIGHT EAR


# D. Screw the tube onto the hearing aid until the triangular section fits neatly with the hearing aid body. 

RIGHT EAR


# 3. How to put the 

$$
\begin{aligned}
& \text { hearing aid in } \\
& \text { your right ear }
\end{aligned}
$$

# Use your right hand to place the hearing aid body behind your right ear. 

## RIGHT EAR



Insert the dome snugly into your ear opening. Leave the anchor sticking out for now.

## RIGHT EAR



Feel the bowl of your ear with your finger. This is where the anchor will go.

Curl the anchor along the bowl of your ear, and ensure it does not stick out of your ear.

## RIGHT EAR



The tube should fit close to the side of your head (should not be bowed out or pinching the top of your ear).

When it is in correctly it should look like the picture on the left. If your hearing aid does not look like this on your ear, the next step will tell you how to fix it.


# 4. How to check 

the fit of the

# hearing aid on 

## your ear

Checking that the tube fits well (Steps A-H):
A. The tubes are sized from 0 (shortest) to 3(longest).
B. Move your head side to side and tilt it forward and back.
C. If the tube is not sitting close to the side of your face or the hearing aid falls off your ear, try a shorter tube.
D. If the hearing aid feels too tight/pinches on the top of your ear, try a longer tube.
E. If it feels fine and stays on your ear, keep the tube you have.
F. Place any tubes that you tried but did not fit in the black/no bin.
G. Slide the container with the red (right) tubes off to the left side of the table.
H. Record your final choice on the Rx pad.

Steps for checking that the dome fits well (Steps A-F):
A. Open and close your mouth.
B. If the dome feels like it is going to come out of your ear, choose a bigger dome.
C. If it feels too tight inside your ear, choose a smaller dome.
D. If it feels comfortable, keep the dome you have.
E. Place any domes that you tried but did not fit in the black/no bin.
F. Record your final choice on the Rx pad.

# 5. How to listen to 

# different sounds 

## with the "X"

 hearing aidWith the hearing aid you have on from the $\mathbf{X}$ bin, in your color choice, and tube and dome configuration, snap the battery door shut. This will turn your hearing aid on. See the next page for additional instructions.

To do this, while still wearing the hearing aid, push the battery door on the bottom of the hearing aid with your thumb until it completely closes. You will hear/feel a click when the battery door closes. Also, you will hear several beeps indicating that the hearing aid is powering on.

OPEN BATTERY


It should look like this after it is closed.


Now you will listen to different sound samples using the small computer screen on the right side of the table. The loudspeaker is located directly in front of you mounted on the wall. When doing any of the following listening tasks, after you push one of the sound buttons on the small computer screen, you should look directly at the loudspeaker to get the best listening experience.

Press the speech bubble button.


- You will hear up to one minute of men and women speaking various sentences, but you can replay it as many times as you need.
- While listening, take note of the sound quality you hear with this model.
- You can stop the sample by pressing the stop button at any time.

Now press the music note button.


- You will hear up to one minute of classical music, but you can replay it as many times as you need.
- While listening, take note of the sound quality you hear with this model.
- You can stop the sample by pressing the stop button at any time.

Next press the tree button.


- You will hear up to one minute of environmental sounds, but you can replay it as many times as you need.
- While listening, take note of the sound quality you hear with this model.
- You can stop the sample by pressing the stop button at any time.


## 6. How to listen to sounds with $\mathbf{Y}$ <br> and $\mathbf{Z}$ hearing <br> aids

# If you have already listened with Y model skip ahead to instructions for $\mathbf{Z}$ model. 

Now you are going to pick one of the two hearing aids of the same color from the $\mathbf{Y}$ bin and repeat the steps in Steps $3 \& 5$ for putting the hearing aid on and listening to speech, music, and environmental sounds.

Before listening to these sounds you will need to switch hearing aids. The 4 steps on the next page will tell you how to switch hearing aids.
A. To remove the hearing aid from your ear, grab by the tube and pull outward.
B. With the hearing aid out of your ear, open the battery door, and remove your tube, with your dome and the triangular adaptor still attached, by unscrewing it (counterclockwise) from the body of the hearing aid. Put the $\mathbf{X}$ model in the green/yes bin. You will now be using the $Y$ model to listen to sound samples.
C. Screw your tube (with your dome and the triangular adaptor still attached) onto (clockwise) the body of the $\mathbf{Y}$ hearing aid. Refer to step 2 if you have forgotten how to do this. Now repeat steps $3 \& 5$ (putting the hearing aid on and listening to sound samples).
D. After listening to the sound samples, decide if you prefer the $\mathbf{Y}$ model over the $\mathbf{X}$ model. Keep your favorite model on your ear, and place the other model in the black/no bin.

# If you have already listened 

 with the $\mathbf{Z}$ model skip ahead to page 32.Now you are going to pick one of the two hearing aids of the same color from the $\mathbf{Z}$ bin and repeat the steps in Steps $3 \& 5$ for putting the hearing aid on and listening to speech, music, and environmental sounds.

Before listening to these sounds you will need to switch hearing aids. The 4 steps on the next page will tell you how to switch hearing aids.
A. To remove the hearing aid from your ear, grab by the tube and pull outward.
E. With the hearing aid out of your ear, open the battery door, and remove your tube, with your dome and the triangular adaptor still attached, by unscrewing it (counterclockwise) from the body of the hearing aid. Put this model in the green/yes bin. Now you will be using the $Z$ model to listen to sound samples.
B. Screw your tube (with your dome and the triangular adaptor still attached) onto (clockwise) the body of the $\mathbf{Z}$ hearing aid. Refer to step 2 if you have forgotten how to do this. Now repeat steps $3 \& 5$ (putting the hearing aid on and listening to sound samples).
C. After listening to the sound samples, decide if you prefer the $\mathbf{Z}$ model over the model in the green/yes bin. Place/keep your favorite model on your ear, and place the other model in the black/no bin.

After you have tried different models, if you are certain of your choice continue on to the next page.

If you are uncertain of your preference, feel free to go back and try the other models again listening to the sound samples as needed.

When you are certain of your preference, place that model on your ear (refer to step 4 if you have forgotten how to do this) and the other two models in the black/no bin.

Record your final choice on the Rx pad.

Now that you have picked a hearing aid for your right ear, you will do the same thing for your left ear.

Close this book and set it to the side. Pick up the blue book and follow the steps to assemble and pick a hearing aid for your left ear.

## CHOOSING A HEARING AID FOR YOUR LEFT EAR

Now you are going to assemble a hearing aid for your left ear.

Pick up the other hearing aid in the bin of the model you chose for your right ear which should be recorded on your Rx pad. For example, if you chose a Y model for your right ear, you should pick up the $\mathbf{Y}$ model for your left ear. Use this hearing aid for the following steps (Steps 2-5).

Note: Do not close the battery door on the left hearing aid yet. You will be instructed to close it later. If it closes accidentally before instructed, just open it slightly.

# 2. How to choose <br> <br> a tube and dome <br> <br> a tube and dome <br> for your left ear 



## MEDIUM DOME



Choose the same size tube and dome you ended up with for your right ear. Refer to your Rx pad to find these sizes.

There are two parts to the tube; the triangular adaptor (top portion) and the curved tubing. The triangular adaptor is currently attached to the tube, but it should remain attached to the hearing aid body during cleaning. Later, you should review the user guide for how to clean the tubes when necessary.


Steps for attaching the dome to the tube (Steps A-B): A.Push the dome over the ridged end of the tube. LEFT EAR


# B.Make sure the dome is pushed onto the tube as far as it can go. 

## LEFT EAR



Steps for attaching the tube and dome to the body of the hearing aid (Steps A-D):
A. Find the triangular end of the tube.

LEFT EAR


# B. Find the grey screw on the top of the hearing aid body. 

LEFT EAR

C. Attach the two parts together. To do this, screw (clockwise) the triangular part of the tube onto the grey screw on the top of the hearing aid body.

LEFT EAR


# D. Screw the tube onto the hearing aid until the 

 triangular section fits neatly with the hearing aid body.LEFT EAR


# 3. How to put the hearing aid in your left ear 

# Use your left hand to place the hearing aid body behind your left ear. 

## LEFT EAR



Insert the dome snugly into your ear opening. Leave the anchor sticking out for now.


Feel the bowl of your ear with your finger. This is where the anchor will go.

Curl the anchor along the bowl of your ear, and ensure it does not stick out of your ear.

## LEFT EAR



The tube should fit close to the side of your head (should not be bowed out or pinching the top of your ear).

When it is in correctly it should look like the picture on the left. If your hearing aid does not look like this on your ear, the next step will tell you how to fix it.

## PLACED CORRECTLY

## PLACED INCORRECTLY



# 4. How to check the fit of the hearing aid on <br> <br> your ear 

 <br> <br> your ear}

Steps for checking that the tube fits well (Steps A-G):
A. The tubes are sized from 0 (shortest) to 3(longest).
B. Move your head side to side and tilt it forward and back.
C. If the tube is not sitting close to the side of your
face or the hearing aid falls off your ear, try a shorter tube.
D. If the hearing aid feels too tight/pinches on the top of your ear, try a longer tube.
$E$. If it feels fine and stays on your ear, keep the tube you have.
F. Place any tubes that you tried but did not fit in the black/no bin.
G. Record your final choice on the Rx pad.

Steps for checking that the dome fits well (Steps A-F):
A. Open and close your mouth.
B. If the dome feels like it is going to come out of your ear, choose a bigger dome.
C. If it feels too tight inside your ear, choose a smaller dome.
D. If it feels comfortable, keep the dome you have.
E. Place any domes that you tried but did not fit in the black/no bin.
F. Record your final choice on the Rxpad.

# 5. How to listen to different sounds <br> <br> with both hearing <br> <br> with both hearing <br> <br> aids 

 <br> <br> aids}

With the hearing aids you have chosen, in your color choice, and tube and dome configuration, snap the battery door of the left hearing aid shut (your right hearing aid should already be turned on). This will turn your hearing aid on. See the next page for additional instructions.

To do this, while still wearing the hearing aid, push the battery door on the bottom of the hearing aid with your thumb until it completely closes. You will hear/feel a click when the battery door closes. Also, you will hear several beeps indicating that the hearing aid is powering on.


It should look like this after it is closed.


Now you will listen to different sound samples using the small computer screen on the right side of the table. The loudspeaker is located directly in front of you mounted on the wall. When doing any of the following listening tasks, after you push one of the sound buttons on the small computer screen, you should look directly at the loudspeaker to get the best listening experience.

Press the speech bubble button.


- You will hear up to one minute of men and women speaking various sentences, but you can replay it as many times as you need.
- While listening, take note of the sound quality you hear with this model.
- You can stop the sample by pressing the stop button at any time.

Now press the music note button.


- You will hear up to one minute of classical music, but you can replay it as many times as you need.
- While listening, take note of the sound quality you hear with this model.
- You can stop the sample by pressing the stop button at any time.

Next press the tree button.


- You will hear up to one minute of environmental sounds, but you can replay it as many times as you need.
- While listening, take note of the sound quality you hear with this model.
- You can stop the sample by pressing the stop button at any time.

Now, after listening to all three sound samples by wearing a hearing aid on each ear, do you like the way the hearing aids sound together?

If YES, record your final choices on your Rx pad and continue on to the next page.

If NO, pick two of the same hearing aids from a different bin ( $\mathbf{X}, \mathbf{Y}$, or $\mathbf{Z}$ ) and listen to the sound samples again. For example, if you are wearing two $\mathbf{X}$ models, switch to either two Y's or two Z's. You will need to remove the hearing aids from your ears, remove the tubes from these hearing aids, and then place them on a different hearing aid. You will then place this model on your ear and listen to the different sound samples.

Once you have determined which model is your favorite, place them on your ears and place the other models in the black/no bin.

Record your final choices on your Rx pad.

# In the end, you will have only one hearing aid for the right ear and only one hearing aid for the left ear. 

When you are comfortable with your decision, you should have your preferred model on your ears, and the rest of the models that you tried on today should be in the black/no bin along with any tubes and domes that were tried, but did not fit.

Congratulations! You have now selected your new hearing aids. Press the button on the pager device located behind you to let the Clinical Trials Coordinator know you have made your final decision.


CD2
Rx for

|  | Right Hearing Aid |  | Left Hearing aid |  |
| :--- | :--- | :--- | :--- | :--- |
| Color | Beige | $\square$ | Beige | $\square$ |
|  | Brown | $\square$ | Brown | $\square$ |
|  | Grey | $\square$ | Grey | $\square$ |
| Tube | Size 0 | $\square$ | Size 0 | $\square$ |
|  | Size 1 | $\square$ | Size 1 | $\square$ |
|  | Size 2 | $\square$ | Size 2 | $\square$ |
|  | Size 3 | $\square$ | Size 3 | $\square$ |
| Dome | Small | $\square$ | Small | $\square$ |
|  | Medium | $\square$ | Medium | $\square$ |
|  | Large | $\square$ | Large | $\square$ |
|  | Tulip | $\square$ | Tulip | $\square$ |
| Model | X | $\square$ | X | $\square$ |
|  | Y | $\square$ | Y | $\square$ |
|  | Z | $\square$ | Z | $\square$ |

Rx for

|  | Right Hearing Aid |  | Left Hearing aid |  |
| :--- | :--- | :--- | :--- | :--- |
| Color | Beige | $\square$ | Beige | $\square$ |
|  | Brown | $\square$ | Brown | $\square$ |
|  | Grey | $\square$ | Grey | $\square$ |
| Tube | Size 0 | $\square$ | Size 0 | $\square$ |
|  | Size 1 | $\square$ | Size 1 | $\square$ |
|  | Size 2 | $\square$ | Size 2 | $\square$ |
|  | Size 3 | $\square$ | Size 3 | $\square$ |
| Dome | Small | $\square$ | Small | $\square$ |
|  | Medium | $\square$ | Medium | $\square$ |
|  | Large | $\square$ | Large | $\square$ |
|  | Tulip | $\square$ | Tulip | $\square$ |
| Model | X | $\square$ | X | $\square$ |
|  | Y | $\square$ | Y | $\square$ |
|  | Z | $\square$ | Z | $\square$ |

$\Psi$
Rx for

|  | Right Hearing Aid |  | Left Hearing aid |
| :--- | :--- | :--- | :--- |
| Color | Beige | $\square$ | Beige |

Rx for

|  | Right Hearing Aid |  | Left Hearing aid |  |
| :--- | :--- | :--- | :--- | :--- |
| Color | Beige | $\square$ | Beige | $\square$ |
|  | Brown | $\square$ | Brown | $\square$ |
|  | Grey | $\square$ | Grey | $\square$ |
| Tube | Size 0 | $\square$ | Size 0 | $\square$ |
|  | Size 1 | $\square$ | Size 1 | $\square$ |
|  | Size 2 | $\square$ | Size 2 | $\square$ |
|  | Size 3 | $\square$ | Size 3 | $\square$ |
| Dome | Small | $\square$ | Small | $\square$ |
|  | Medium | $\square$ | Medium | $\square$ |
|  | Large | $\square$ | Large | $\square$ |
|  | Tulip | $\square$ | Tulip | $\square$ |
| Model | X | $\square$ | X | $\square$ |
|  | Y | $\square$ | Y | $\square$ |
|  | Z | $\square$ | Z | $\square$ |

SUBJECT \#: $\qquad$ TEST DATE: $\qquad$

EXAMINER'S INITIALS: $\qquad$

Time needed for Visit 1: $\qquad$

Number of times subject paged CTC with questions/problems (outside of needed pages when finished with something): $\qquad$

Reasons for being paged and CTC's response:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Subject \#: $\qquad$ Date: $\qquad$

Number of additional people in room: $\qquad$

Relationship(s) to patient: $\qquad$

## HEARING AID DECISION FORM FOR CTC

On a scale of 1-10, with 10 being the best, how helpful was the instructional video? $\qquad$

RIGHT Hearing Aid:
Hearing aid: $X \quad Y \quad Z$

Serial Number: $\qquad$

Color: Grey Beige Brown

Tubing Length: $0 \quad 1 \quad 2 \quad 3$

Dome Size: S M L Tulip

## LEFT Hearing Aid:

Hearing aid: $X \quad Y \quad Z$

Serial Number: $\qquad$

Color: Grey Beige Brown

Tubing Length: $0 \quad 1 \quad 2 \quad 3$

Dome Size: S M L Tulip

Hearing Aids

| Color | Letter |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Tubes and Tips
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Visit 1 Hearing Aid Selection Survey

1. On a scale of 1 (difficult) to 10 (easy), how easy/difficult was it to select and fit your tubing? $\qquad$ (write \#, 1 through 10, in blank)
2. On a scale of 1 (difficult) to 10 (easy), how easy/difficult was it to select and fit your dome? $\qquad$ (write \#, 1 through 10, in blank)

| 1 (Difficult) 5 (Neutral) | 10 (Easy) |
| :--- | :--- | :--- |

3. On a scale of 1 (difficult) to 10 (easy), how easy/difficult was it to select and fit your hearing aids? $\qquad$ (write \#, 1 through 10, in blank)
1 (Difficult) 5 (Neutral) 10 (Easy)
4. On a scale of 1 (not confident) to 10 (confident), how confident were you in selecting your tubing? $\qquad$ (write \#, 1 through 10, in blank)

## 1 (Not Confident)

5 (Neutral)
10 (Confident)
5. On a scale of 1 (not confident) to 10 (confident), how confident were you in selecting your dome? $\qquad$ (write \#, 1 through 10, in blank)

1 (Not Confident)
5 (Neutral)
10 (Confident)
6. On a scale of 1 (not confident) to 10 (confident), how confident were you in selecting your hearing aids?
$\qquad$ (write \#, 1 through 10, in blank)
7. On a scale of 1 (least helpful) to 10 (most helpful), how helpful were the written instructions? $\qquad$ (write \#, 1 through 10, in blank)

# USER GUIDE 

BEHIND-THE-EAR (BTE) MODELS:
THIN TUBE

IU CT
$\Psi$

Hearing instrument model: Battery size: $\qquad$
Tube length: $\qquad$
Dome size:

Left serial number: Right serial number: $\qquad$

Date of Purchase:
Warranty Expiration:

## STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from the one in which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
Changes or modifications can void the user's authority to operate the equipment.


## INTENDED USE

Generic air-conduction hearing instruments are wearable sound-amplifying devices intended to compensate for impaired hearing. The fundamental operating principle of hearing instruments is to receive, amplify, and transfer sound to the ear drum of a hearing impaired person.

## INTRODUCTION

Congratulations on the purchase of your new hearing instruments. The innovative sound technology and design will make hearing a more enjoyable experience. These hearing instruments are state of the art digital technology with multiple channels, directional microphones, and advanced feedback control and noise reduction. Your hearing instruments will enable you to hear sounds that you may not have heard in years because of your hearing loss. Practice and a positive attitude are important in learning to use hearing instruments. Some people adjust quickly to wearing hearing instruments in their ears and hearing new sounds; other people may need more time. Please read this manual carefully in order to wholly benefit from the use of your hearing instruments. With proper care, maintenance, and usage, your hearing instruments will aid you in better communication for many years. Ask IUCT if you have any questions.

## CONTENTS <br> GETTING STARTED

PAGE
Components ..... 6
Adjusting to a world of new sounds ..... 7
Turning your hearing instrument on and off ..... 7
Delayed start ..... 8
Insertion and removal ..... 8
CONTROLS AND FEATURES
Volume control ..... 9
Telephone use ..... 9
Listening to the radio/TV ..... 10
Cell phones ..... 10
Changing the battery ..... 10
Low battery indicator ..... 11
Battery warning information ..... 11
MAINTENANCE
Daily maintenance ..... 12
Care and maintenance ..... 12
Maintaining the thin tubes and domes ..... 13
How to apply domes ..... 14
GENERAL INFORMATION
General precautions ..... 15
General warnings ..... 15-16
Troubleshooting guide ..... 17
Warranty and repairs ..... 18
Loss and damage ..... 18
Communication hints ..... 19-20
Notes ..... 21-22
Personal information ..... 23

## COMPONENTS

1. Volume Control
2. Battery compartment \& On/Off switch
3. Sound outlet
4. Front microphone inlet
5. Back microphone inlet
6. Optional Volume Control (Your hearing aid does not have this)
7. Left/Right indicator (Left=Blue/Right=Red)
8. Serial number
9. Thin tube
10. Dome
11. Anchor


## ADJUSTING TO A WORLD OF NEW SOUNDS

A hearing loss is typically acquired gradually over many years. You may have become accustomed to an everyday life with fewer sounds, which also means hearing less noise than people with normal hearing.
With your new hearing instruments you will experience many sounds that you may not have heard for years such as:

- Clocks ticking
- Newspaper crinkling
- Children's voices
- Car noises
- Bird songs
- Footsteps on the floor
- Whispers and soft speech It can take several months for your brain to become accustomed to all of the "new" sounds around you.


## TURNING YOUR HEARING INSTRUMENT ON AND OFF

Your hearing instrument is equipped with an on/off switch integrated into the battery compartment.

1. When the battery compartment is fully closed, the instrument is turned on.
2. To turn the instrument off, open the battery door by lifting the tab at the base of the battery door. Once the battery door opens, the instrument will be turned off.
3. Whenever you are not using the instrument, remember to turn it off to reduce battery consumption.


## DELAYED START

Generally, people prefer to turn on the hearing instrument once it is fully inserted in the ear. To facilitate this, IUCT has activated the delayed start function.
Delayed start allows you to insert the instrument into the ear without annoying squealing sounds by delaying activation of the device by ten seconds after closing the battery door. During this 10 -second period you will hear soft beeps.

## INSERTION AND REMOVAL

## INSERTION

1. Hang the instrument over the top of your ear.
2. Hold the thin tube where it bends, and gently push the dome into the ear canal. Push the dome far enough into the ear canal so that the thin tube lies flush with the head. Curl the anchor along the bowl of your ear.
3. It is important that the tube and the dome fit correctly into your ear.
4. When the dome is placed correctly, you should not be able to see the thin tube sticking out when facing a mirror.


Note: You should
 never attempt to bend or modify the shape of the thin tube.

## REMOVAL

Hold the thin tube with your thumb and forefinger and pull the tube outward.

## VOLUME CONTROL

Your hearing instrument features volume settings. Please refer to page 6 for the location of the volume control.

1. You can switch between volume settings by pushing the volume control once.
2. You will hear one or more beeps. The number of beeps indicates which volume setting you have selected.
3. You can always return to everyday setting by turning your instrument off and then on again.

| Volume setting |  |
| :--- | :--- |
| 1 beep | Everyday |
| 2 beeps | Soft |
| 3 beeps | Softest |
| 4 beeps | Loudest |

## TELEPHONE USE

Finding the optimal position for holding a telephone may require practice for some individuals, and one or more of the following suggestions may be helpful.

1. Hold the telephone as you would normally.
2. Hold the telephone towards the top of the ear (closer to where the microphones are).
3. If whistling occurs, it may take a few seconds of holding the telephone in the same position before the hearing instrument eliminates the feedback.
4. Any whistling may also be decreased by holding the telephone slightly away from the ear.


## LISTENING TO THE RADIO OR TV

When listening to the TV or the radio, start out by listening to news commentators since they usually speak clearly, and then try other programs.

## CELLULAR PHONES

Your hearing instrument is designed to comply with the most stringent Standards of International
Electromagnetic Compatibility. However, not all cell phones are hearing instrument compatible. The varying degree of disturbance can be due to the nature of your particular cellular phone or of your wireless telephone service provider.

## CHANGING THE BATTERY

The batteries for the hearing instrument are quite small, which may cause difficulty in seeing the battery and battery door markings. A magnifying glass and good lighting may be helpful.

1. Open the battery door completely by using your fingernail to lift on the battery door.
2. Remove the used battery if present. Insert the new battery with the positive " + " (flat) side facing the " + " on the battery door.
3. It should fit in like a puzzle piece. The battery door should close very easily. Never use force to close the door as this may damage your hearing instrument.
4. The magnet on the end of your cleaning brush can be used to remove the battery.
5. Always use the correct size new Zinc-Air batteries that have a minimum remaining shelf life of 1 year.

## LOW BATTERY INDICATOR

A low battery indicator is activated in your hearing instruments. The hearing instrument will reduce amplification and play a melody if battery power gets too low. This signal will recur every five minutes until the hearing instrument automatically switches off. The timing of the low battery indicator can vary slightly depending on the type of battery used. It is recommended that you keep spare batteries on hand. Your batteries will last 5-7 days with typical everyday use.

1Please note that a weak battery will affect the performance of your hearing instrument. Remove the batteries to prevent battery leakage or corrosion when the hearing instruments are not in use for an extended period of time.

## BATTERY WARNING INFORMATION

Batteries contain dangerous substances and should be disposed of carefully. This is for your safety. Please note:

1. DO NOT attempt to recharge batteries (Zinc Air) which are not specifically designated as rechargeable because they may leak or explode.
2. DO NOT attempt to dispose of batteries by burning them.
3. DO NOT place batteries in your mouth. Consult a physician immediately if a battery has been swallowed, as they can be harmful to your health.
4. Keep batteries away from pets, children and individuals who are mentally challenged.
5. Used batteries are harmful to the environment. Please dispose of them according to local regulations or return them to IUCT.

## DAILY MAINTENANCE

It is important to keep your hearing instrument clean and dry. On a daily basis, clean the case of the hearing instruments using a soft cloth or tissue. Do not use water or solvents, as these can damage the hearing instrument(s). The use of a drying kit is recommended in order to avoid damage due to humidity or excessive perspiration, and will be provided to you for your use at the end of session 3.


## CARE AND MAINTENANCE

Your hearing instrument is protected by a layer of protective, hydrophobic nanocoat material. However, please follow these instructions to further prolong the durability of your hearing instruments.

1. Never immerse hearing instruments in water or other liquids, as liquids may cause permanent damage to the hearing instruments.
2. Avoid rough handling of hearing instruments or dropping them on hard surfaces or floors.
3. Do not leave hearing instruments in or near direct heat or sunlight, as excessive heat can cause damage or deform the casing.
4. Hair spray, make-up, etc. may damage hearing instruments. Remove the instruments prior to the application of cosmetics.

## MAINTAINING THE THIN TUBES AND DOMES

The thin tube and the dome feed the amplified sound from the hearing instrument into the ear. It is important that the tube and the dome fit correctly in your ear. If the tube or the dome irritates your ear in any way and prevents you from wearing your hearing instrument please let the clinician know when you return for session 3 in about 6 weeks. You should never attempt to modify the shape of the tube yourself.
The tube and the dome should be cleaned regularly.

1. Wipe down thin tubes and domes with a damp cloth.

The wire loop on the end of your cleaning brush can be used to remove debris from the dome and sound bore, and the cleaning brush can be used to remove debris from the microphone ports.
2. If debris is seen in the thin tube, first remove thin tubes from hearing instruments before cleaning by unscrewing them counter clockwise from the triangular adaptor. Then, push the black cleaning rod through the thin tube, beginning at the end opposite the dome. This will push out any debris or moisture that may be in the thin tube.
3. It is not recommended to submerge or rinse the tube and dome with water, as there is a risk that a water drop may become lodged in the tube.


Note: The thin tube may become stiff, brittle, or discolored over time. Contact IUCT regarding tube and dome changes.

## HOW TO APPLY THE DOMES <br> STANDARD DOMES

1. Push the new dome over the flanges on the thin tube.
2. Make sure that the new dome is properly and securely mounted.


## TULIP DOMES

Tulip domes are mounted in a similar manner to standard domes, but a few extra steps are required. Tulip domes consist of two "petals". It is important to note that the largest petal is the outermost petal. To ensure this:

1. Push the largest petal away from the thin tube using a finger. This bends the petal forward.
2. Then push the largest petal back, and it will be placed on top of the smallest petal.


## GENERAL PRECAUTIONS

1. Do not leave hearing instruments in the sun, near an open fire, or in a hot, parked car.
2. Do not wear hearing instruments while showering, swimming, in heavy rain, or in a moist atmosphere such as a steam bath or sauna.
3. Should the hearing instrument become moist, remove the battery and place the hearing instrument in a closed container with a drying agent. IUCT will provide a drying kit at the end of session 3.
4. Remove the hearing instruments when applying items such as cosmetics, perfume, aftershave, hair spray, and suntan lotion.
5. Use only the original consumables, e.g., tubes and domes given to you by IUCT.

## GENERAL WARNINGS

1. Please let the IUCT staff know on return visit if you think there may be a foreign object in your ear canal, if you experience skin irritation, or if excessive ear wax accumulates with the use of the hearing instrument.
2. Different types of radiation, from e.g. NMR, MRI, or CT scanners, may damage hearing instruments. It is recommended not to wear hearing instruments during these or other similar procedures. Other types of radiation, such as burglar alarms, room surveillance systems, radio equipment, mobile telephones, contain less energy and will not damage hearing instruments. However, they have the potential to momentarily affect the sound quality or temporarily create strange sounds from hearing instruments.
3. Do not wear hearing instruments in mines, oil fields, or other explosive areas unless those areas are certified for hearing instrument use.
4. Do not allow others to use your hearing instruments. This may cause damage to the hearing instruments or to the hearing of the other individual.
5. Instrument usage by children or mentally challenged persons should be supervised at all times to ensure their safety. The hearing instrument contains small parts that could be swallowed by children. Please be mindful not to leave children unsupervised with this hearing instrument.
6. Hearing instruments should be used only as prescribed by your hearing care professional. Incorrect use may result in hearing loss.
7. Warning to hearing care professionals: Special care should be exercised in selecting and fitting a hearing instrument(s) whose maximum sound pressure level exceeds 132 dB SPL (with an IEC 60711:1981 occluded ear simulator), because there may be a risk of impairing the remaining hearing of the hearing instrument user.

TROUBLESHOOTING GUIDE

| Symptom | Cause | Possible Remedy |
| :---: | :---: | :---: |
| No sound | -Not turned on <br> -Battery <br> low/dead <br> -Battery door <br> will not close <br> -Battery <br> improperly <br> inserted <br> -Blocked tube | -Turn on by closing the battery door -Replace battery <br> -Insert battery properly -Insert battery properly <br> -Clean tube |
| Not loud enough | -Incorrect dome placement -Blocked dome <br> -Change in hearing sensitivity -Excessive ear wax | -Re-insert dome <br> -Clean/replace dome -Consult IUCT on or after session 3 <br> -Consult your physician |
| Excessive whistling/feedback | -Incorrect dome placement -Excessive ear wax <br> -Thin tube worn or damaged -Thin tube connection loose | -Re-insert dome <br> -Consult your physician <br> -Consult IUCT on or after session 3 -Consult IUCT on or after session 3 |
| Sound distorted/ not clear | -Weak battery <br> -Improper dome fit <br> -Hearing instrument damaged | -Replace battery <br> -Consult IUCT on or after session 3 -Consult IUCT on or after session 3 |

## WARRANTY AND REPAIRS

These hearing instruments have been provided by an international hearing aid company in Denmark to Indiana University Clinical Trials. The Danish company provides a warranty on hearing instruments in the event of defects in workmanship or materials, as described in applicable warranty documentation.
In its service policy, the company pledges to secure functionality at least equivalent to the original hearing instrument.

As a signatory to the United Nations Global Compact initiative, the company is committed to doing this in line with environment-friendly best practices. Hearing instruments therefore, at the company's discretion, may be replaced by new products or products manufactured from new or serviceable used parts, or repaired using new or refurbished replacement parts.
The warranty period of your hearing instruments is designated on the inside cover of this user guide. For hearing instruments that require service, please contact IUCT for assistance.
The company's hearing instruments that malfunction must be repaired by a qualified technician. Do not attempt to open the case of hearing instruments, as this will invalidate the warranty.

## COMMUNICATION HINTS

## GENERAL

A. Keep informed about national and world affairs, community events and activities within your social circle.
B. Keep informed about events of interest to your family and friends.
C. Encourage two-way exchange of information. Don't monopolize a conversation.
D. Concentrate on understanding concepts and main ideas rather than isolated words.
E. Cultivate personality traits that win friends and influence people, such as having a genuine interest in others, wearing a sincere ready smile, maintaining an even disposition, and respecting the speaker.
F. Remember that everyone hears and understands less well when they are tired or ill.
G. Relax! Tension interferes with effective communication.

## FOR HEARING-IMPAIRED PEOPLE SPEAKING WITH OTHERS

A. Wear recommended hearing aids (and glasses).
B. Let the audible aspects of speech supplement visible speech movements.
C. Position yourself so that the sun or light is at the speaker's face, not in your eyes.
D. Face the speaker directly and on the same level when possible. Sit across from and close to the speaker with your better ear toward the speaker.
E. Become familiar with the way different people express themselves: facial expression, vocabulary sentence structure, accent or dialect, etc.
F. Watch facial expressions and body gestures while listening to the speaker.
G. Learn to anticipate and understand the topic of conversation by using situational cues, contextual cues and understanding of the logical sequence of events. Also, use the rhythm of a spoken message to help understand a conversation.
H. If in another room, go to the speaker or have him come to you.
I. In your home, reduce competing noises by turning off or lowering the volume of TV's, stereo equipment, running water, etc. for improved speech recognition.
J. Lessen room echoes by using sound absorbing carpeting, ceiling tiles, drapes and overstuffed furniture.
K. Educate others to the fact that quiet, natural speech is easiest for you to understand.
L. Be realistic! Don't blame you hearing loss for every communication problem. No one hears everything all the time.

NOTES
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

NOTES
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

These hearing instruments were purchased by from the IU clinical trials on .

Name: $\qquad$
Address:

Phone Number:

Indiana University Clinical Trials


SUBJECT \#: $\qquad$ TEST DATE: $\qquad$
CTC'S INITIALS: $\qquad$

## HEARING AID CASE CHECKLIST

Big leather case

- Hard case $\square$
- Small Velcro pouch
- Small zipper pouch
- Soft cloth
- Brush with wire loop and magnet $\square$
- Wire rod
- 2 extra domes
- User guide $\square$
- 2 packs of batteries $\square$
- CTC's card $\square$
$\qquad$
$\qquad$
EXAMINER'S INITIALS: $\qquad$


# AIDED CST FORM \#1 (Visit 2) 

(AS WORN)
TRACK 33
(CST 50 dB HL; +3 dB SNR; SP: 0 degrees N: 180 degrees; Binaural; Aided)
Text for the CONNECTED SPEECH TEST
(scoring words are capitalized, mark through each incorrect response in ink with an $\boldsymbol{X}$, and record the total number of words correct below)

## Passage: 1-UMBRELLA

The NAME "umbrella" means a small shadow.
Umbrellas WERE first used in ANCIENT Egypt.
THEY GAVE protection FROM the fierce SUNSHINE.
SLAVES held UMBRELLAS over their MASTERS.
In Egypt today, many people CARRY umbrellas.
In EARLY Rome, ONLY WOMEN used umbrellas.
IF a MAN did, he WAS CONSIDERED a sissy.
Umbrellas were USED by both SEXES in ENGLAND.
TODAY, people use umbrellas to keep OUT the RAIN.
Umbrellas USED as sunshades are called parasols.

## Passage 2- GIRAFFE

The giraffe is the tallest wild ANIMAL.
It is three times taller than a man.
A full grown giraffe is eighteen FEET high.
The giraffe has an extremely LONG NECK.
The neck HAS ONLY seven NECKBONES.
The GIRAFFE'S BODY is about the SIZE of a HORSE'S.
The BODY is SHAPED LIKE a triangle.
Africa is the only country WHERE giraffes LIVE WILD.
LARGE GROUPS of them are FOUND ON the PLAINS.
They live there with LIONS and ELEPHANTS.
$\qquad$

## Visit 2 Hearing Aid Selection Survey

1. On a scale of 1 (difficult) to 10 (easy), how easy/difficult was it to select and fit your tubing? $\qquad$ (write \#, 1 through 10, in blank)
2. On a scale of 1 (difficult) to 10 (easy), how easy/difficult was it to select and fit your dome? $\qquad$ (write \#, 1 through 10, in blank)

| 1 (Difficult) 5 (Neutral) | 10 (Easy) |
| :--- | :--- |

3. On a scale of 1 (difficult) to 10 (easy), how easy/difficult was it to select and fit your hearing aids? $\qquad$ (write \#, 1 through 10, in blank)
1 (Difficult) 5 (Neutral) 10 (Easy)
4. On a scale of 1 (not confident) to 10 (confident), how confident were you in selecting your tubing? $\qquad$ (write \#, 1 through 10, in blank)

## 1 (Not Confident)

5 (Neutral)
10 (Confident)
5. On a scale of 1 (not confident) to 10 (confident), how confident were you in selecting your dome? $\qquad$ (write \#, 1 through 10, in blank)

1 (Not Confident)
5 (Neutral)
10 (Confident)
6. On a scale of 1 (not confident) to 10 (confident), how confident were you in selecting your hearing aids?
$\qquad$ (write \#, 1 through 10, in blank)
7. On a scale of 1 (least helpful) to 10 (most helpful), how helpful was the written instructions? $\qquad$ (write \#, 1 through 10, in blank)
1 (Least Helpful) 5 (Neutral) 10 (Most Helpful)
$\qquad$
$\qquad$
$\qquad$
HEARING AID PHYSICAL INSPECTION CHECKLIST (VISIT 2)
**Do not open battery door until after as worn speechmapping is complete**

## LEFT

## Otoscopy/Ear exam

Hearing aid inserted correctly?
yes $\square$ no $\square$
yes $\square$ no $\square$
If no, describe: $\qquad$

Unremarkable?
EAC red?
Excessive cerumen?
Other: $\qquad$
yes $\square$ no $\square$
yes $\square$ no $\square$
yes $\square$ no $\square$
yes $\square$ no $\square$

Notes: $\qquad$
Hearing Aid

| Tubing intact? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| :--- | :---: | :---: | :---: | :--- |
| Tubing kinked? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Tubing blocked with cerumen? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Dome intact? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Dome blocked with cerumen? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Dome discolored? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |

## RUN AS WORN SIMULATED SPEECH MAPPING

## Listening Check:

| Current program | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

**Return hearing aid to program 1 after recording current program**
Acceptable sound quality? yes $\square$ no $\square \quad$ yes $\square$ no $\square$
If no, describe:

## Battery:

Sufficient charge? ( $\geq 3 / 4$ charge) yes $\square$ no $\square$ yes $\square$ no $\square$

## SEE REVERSE SIDE TO COMPLETE

Was battery changed?
Was tubing changed?
Were domes changed?

RIGHT
yes $\square$ no $\square$
yes $\square$ no $\square$
yes $\square$ no $\square$

LEFT
yes $\square$ no $\square$
yes $\square$ no $\square$
yes $\square$ no $\square$

## Visit 2 checklist

$\qquad$ 1. As-worn aided CST
2. Aided PHAP (subj does this while physical inspection is completed)
3. Aided HHIE (subj does this while physical inspection is completed)
4. HA Selection Survey
5. Physical inspection Checklist
a. As-worn speechmap
i. Test $\rightarrow$ Testbox measures $\rightarrow$ speechmap
ii. Run $65,55,75 \mathrm{~dB}$ SPL and MPO
iii. Print results in table format to USB and save to XML
b. Hearing aid maintenance
c. Post-maintenance speechmap
i. Run $65,55,75 \mathrm{~dB}$ SPL and MPO (printed at end of visit)
6. Datalogging
a. Create file in Noah with patient's subj \# and connect hearing aid to software
b. Record datalogging and print report
c. Reset datalogging
d. Save to session and hearing aid.
7. MPO with adjustments
a. Familiarize with loudness categories.
b. Change to graph view on Verifit to watch where subject raises hand.
c. Run MPO at 85 with RIGHT first (left muted). (decrease at appr freq by 4 dB ).
d. Do same for LEFT (right muted).

## \# times MPO adjusted (-4 dB increments)

|  | 250 | 500 | 750 | 1000 | 1500 | 2000 | 3000 | 4000 | 6000 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Right |  |  |  |  |  |  |  |  |  |
| Left |  |  |  |  |  |  |  |  |  |

e. Do loudness measures for both ears unmuted (decrease at appr freq by 2 dB in both aids).
\# times MPO adjusted (-2 dB increments)

|  | 250 | 500 | 750 | 1000 | 1500 | 2000 | 3000 | 4000 | 6000 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Both |  |  |  |  |  |  |  |  |  |

f. Print results in table format to USB and save to XML.
$\qquad$ 8. On-ear UNAIDED 65 dB speechmap measurements
a. Tests $\rightarrow$ On-Ear measures $\rightarrow$ speechmap
b. Insert probe tubes in ears without hearing aids
c. Start with RIGHT
d. Choose EQUALIZE
e. Run speechmap on RIGHT at 65
f. Repeat for LEFT starting with EQUALIZE.
9. On-ear AIDED 65, 55, 75 speechmap measurements
a. Put hearing aid on ear.
b. Choose EQUALIZE while hearing aids are turning OFF, after white noise stops, close battery door RIGHT
c. Run speechmap on RIGHT at 65,55 , and 75 dB SPL
d. Repeat with LEFT hearing aid

## 10.RECD

a. Print results in table format to USB and save to XML.
$\qquad$ 11. Aided CST
12. Hearing aid decision
13.Audio
a. Otoscopy
b. AC thresholds $250-8000 \mathrm{~Hz}$
c. SRT
d. WRS using CID-W22
e. BC thresholds $250-4000 \mathrm{~Hz}$
14. Unaided CST
15. Tymps and reflexes
a. Tymps and reflexes at 500, 1000, and 2000 Hz
16. MMSE
17. Case history
-18. Find out hearing aid choice from Dana

- 19. Hearing aid status \#1 form.

20. Take subject to Dana for payment
21. After subject is gone, enter audiogram and RECD into Verifit on ear speechmap screen for both the right and left ears.
22. Print results in table format to USB, save XML file to USB.

| SII (V2PMSIMMAP) | 65 | 55 | 75 |
| :---: | :---: | :---: | :---: |
| Right |  |  |  |
| Left |  |  |  |
| SII (V2Unaided) | 65 |  |  |
| Right |  |  |  |
| Left |  |  |  |
| SII (V2MAP) | 65 | 55 | 75 |
| Right |  |  |  |
| Left |  |  |  |

23.Print hard copies of V2PMSIMMAPs and RECD and place in Visit 2 folder.

## Instructions for loudness test:

The purpose of this test is to find your judgments of the loudness of different sounds.

You will hear sounds that increase and decrease in volume. You must make a judgment about how loud the sounds are. Pretend you are listening to the radio at that volume. How loud would it be?

After each sound, tell me which of these categories best describes the loudness.

Keep in mind that an uncomfortably loud sound is louder than you would ever choose on your radio no matter what mood you are in.

## CATEGORIES OF LOUDNESS

7. Uncomfortably loud
8. Loud, but okay
9. Comfortable, but slightly loud 4. Comfortable
10. Comfortable, but slightly soft
11. Soft
12. Very soft

## Datalogging Form-Visit 2

SUBJECT \#: $\qquad$

EXAMINER: $\qquad$

TEST DATE: $\qquad$

## RIGHT <br> LEFT

Total \# hours used: $\qquad$
$\qquad$

Average hours used per day: $\qquad$

Since date

## Program Usage (\%)

## Program 1:

Program 2:

Program 3:

Program 4: $\qquad$
$\qquad$
$\qquad$
EXAMINER'S INITIALS: $\qquad$

# AIDED CST FORM \#2 (Visit 2) 

TRACK 36

(CST 50 dB HL; +3 dB SNR; SP: 0 degrees N: 180 degrees; Binaural; Aided)
Text for the CONNECTED SPEECH TEST
(scoring words are capitalized, mark through each incorrect response in ink with an $\boldsymbol{X}$, and record the total number of words correct below)

Passage: 1- NAIL
Nails are used to FASTEN WOOD TOGETHER.
Pioneers USED WOODEN pegs INSTEAD of nails.
One END of a nail is quite POINTED.
The POINT creates an OPENING for the NAIL.
It also helps KEEP the WOOD from SPLITTING.
At the nail's OTHER end is the HEAD.
It provides a STRIKING SURFACE for the hammer.
It also COVERS the nail HOLE in the wood.
There is a SPECIAL NAIL for every PURPOSE.
For MOST purposes a ROUND nail will do.

## Passage 2- WOODPECKER

The woodpecker is a bird with a STRONG BEAK.
It bores HOLES in TREES looking for INSECTS.
Woodpeckers LIVE in all parts of the world.
The TOES of woodpeckers ARE VERY UNUSUAL.
Two POINT FORWARD and two face BACKWARD.
This allows the BIRD to cling to TREES.
The TAIL FEATHERS of a woodpecker are STIFF.
THEY can USE their tails as a SUPPORT.
They also use their tails to grasp TREES.
Woodpeckers HAVE long TONGUES with pointed TIPS.
$\qquad$ TEST DATE: $\qquad$

## EXAMINER'S INITIALS:

$\qquad$

## HEARING AID DECISION FORM \#1

1. Based on your experience over the past 4-6 weeks, are you going to keep the hearing aids?

RIGHT: YES NO

LEFT: YES NO

If NO, ask why? (record choices for data entry, don't give choices to subject)
RIGHT LEFT

Can't hear in noise
Can't hear on phone

Can't get used to sound $\qquad$
Feedback

Uncomfortable

Costs too much

No benefit

Other: $\qquad$
2. Did you read the user guide that was sent home with the hearing aids? YES NO
a. On a scale of 1 (least) to 10 (most), how helpful was the guide? $\qquad$

Subject Number: $\qquad$ Date: $\qquad$ Age: $\qquad$ DOB:

Tested by: $\qquad$
Audiometer: __GSJ-61
Research Project: CD2
Session: $1 \quad 2 \quad 3 \quad 4 \quad$ P/T follow-up

Referral Source: $\qquad$
Earphone: 3 A TDH

Test Reliability:
Procedure: VRA CPA Standard

Frequencyin Hertz

$\qquad$
$\qquad$
EXAMINER'S INITIALS: $\qquad$

# UNAIDED CST FORM (Visit 2) 

TRACK 32
(CST 50 dBHL; +3 dB SNR; SP: 0 degrees N: 180 degrees; Binaural; Unaided)
Text for the CONNECTED SPEECH TEST
(scoring words are capitalized, mark through each incorrect response in ink with an $\boldsymbol{X}$, and record the total number of words correct below)

## Passage: 1-WINDOW

Windows PROVIDE LIGHT and air to ROOMS.
Windows were ONCE COVERED with CRUDE SHUTTERS.
Later, oiled PAPER was USED for windowpanes.
GLASS windows FIRST appeared in ancient Rome.
COLORED glass was used in European WINDOWS.
SOME CHURCHES were FAMOUS for their BEAUTIFUL windows.
These windows DISPLAYED PICTURES from the BIBLE.
PIECES of glass were HELD together by lead.
SUCH windows MAY be seen in French cathedrals.
English churches also contain STAINED glass windows.

## Passage 2- GLOVE

Gloves are CLOTHING WORN ON the HANDS. The WORD "GLOVE" MEANS "palm of the hand."
CRUDE GLOVES were WORN by PRIMITIVE MAN.
Greeks wore WORKING gloves to PROTECT their hands.
The ROMANS USED gloves as a sign of RANK.
Knights used to fasten gloves to their helmets.
The gloves SHOWED their DEVOTION to their LADIES.
A glove thrown on the GROUND SIGNALED a challenge.
Knights threw them at their enemy's feet.
FIGHTING STARTED WHEN the enemy picked up the glove.

$\qquad$
$\qquad$

## Standard Version

## Red Form

Name
Age $\qquad$ Sex $\qquad$
Years of school completed $\qquad$ Purpose of exam $\qquad$
Assessment of level of consciousness

| Alert/ | Drowsy | Stuporous | Comatose/ <br> Unresponsive |
| :---: | :---: | :---: | :---: |

Instructions: Words in boldface type should be read aloud clearly and slowly to the examinee. Item substitutions appear in parentheses. Administration should be conducted privately and in the examinee's primary language. Unless otherwise specified, circle 0 if the response is incorrect or 1 if the response is correct. Begin by introducing the test:

Now l'd like to ask you some questions about your memory.

## RESPONSE

SCORE
(circle one)

## REGISTRATION

Listen carefully. I am going to say three words. You say them back after I stop. Ready? Here they are... EGG [pause], CONFIDENT [pause], AFTER [pause]. Now repeat those words back to me.
[Repeat up to 3 times, but score only the first trial.]

| EGG |  | 0 | 0 |
| :--- | :--- | :--- | :--- |
| CONFIDENT |  | 0 | 1 |
| AFTER |  | 0 | 1 |

Now keep those words in mind. I am going to ask you to say them again in a few minutes.

## ORIENTATION TO TIME

What day is today? What is the...

| year? |  |  | 0 |
| :--- | :--- | :--- | :--- |
| season? | - | 0 | 1 |
| month of the year? | - | 0 | 1 |
| day of the week? | - | 0 | 1 |
| date? |  | 0 | 1 |

## ORIENTATION TO PLACE*

Where are we now? What is the...

| state (or province)? |  |  | 0 |
| :--- | :--- | :--- | :--- |
| county (or city/town)? |  | 1 |  |
| city/town (or part of city/neighborhood)? |  | 0 | 1 |
| building (name or type)? |  | 0 | 1 |
| floor of the building |  | 0 | 1 |
| (rann |  | 0 | 1 | (room number or address)?

*Alternative place words that are appropriate for the setting and increasingly precise may be substituted and noted.

## RECALL

What were those three words I asked you to remember? [Do not offer any hints.]

| EGG |  | 0 | 1 |
| :--- | :--- | :--- | :--- |
| CONFIDENT | $\square$ | 0 | 1 |
| AFTER | $\square$ | 0 | 1 |

If administering the MMSE-2:SV, copy the MMSE-2:BV total raw score to the space provided at the top of page 2 and continue with administration.


PAR • 16204 N. Florida Ave. • Lutz, FL 33549 • 1.800.331.8378 • www.parinc.com
MMSE copyright © 1975, 1998, 2001 and MMSE-2 copyright © 2010 by MiniMental, LLC. All rights reserved. Published 2001, 2010 by Psychotogical Assessment Resources, Inc. (PAR). May not be reproduced in whole or in part in any form or by any means without written permission of Psychological Assessment Resources, Inc. This form is printed in blue and burgundy ink on white paper. Any other version is unauthorized. Printed in the U.S.A.

Reorder \#RO-6686
23456789

ATTENTION AND CALCULATION [Serial 7s]
Now l'd like you to subtract 7 from 100. Then keep subtracting 7 from each answer until I tell you to stop.

| What is $\mathbf{1 0 0}$ take away 7? | $[93]$ |  | 0 | 1 |
| :--- | :--- | :--- | :--- | :--- |
| If needed, say: Keep going. | $[86]$ |  | 0 | 1 |
| If needed, say: Keep going. | $[79]$ |  | 0 | 1 |
| If needed, say: Keep going. | $[72]$ |  | 0 | 1 |
| If needed, say: Keep going. | $[65]$ |  | 0 | 1 |

Score 1 point for each correct answer. An answer is considered correct if it is 7 less than the previous answer, even if the previous answer was incorrect.

## NAMING

What is this? [Point to mouth.] ___ 0
What is this? [Point to nose.] $\quad 0 \quad 1$

## REPETITION

Now I am going to ask you to repeat what I say. Ready? IT IS A LOVELY, COOL DAY BUT TOO WINDY. Now you say that. [Wait for examinee response and record response verbatim. Repeat up to one time.]
IT IS A LOVELY, COOL DAY BUT TOO WINDY.
Detach the last page of this form. Tear the detached page in half along the horizontal perforation line. Use the upper half of the detached page, which has three shapes on it, as a stimulus form for the Comprehension task. Use the bottom half of the page as a stimulus form for the Reading ("OPEN YOUR MOUTH") task. Use the upper back half of the detached page as a stimulus and response form for the Drawing (intersecting pentagons) task and the bottom half of the page (blank) as a response form for the Writing task.

## COMPREHENSION

Listen carefully because I am going to ask you to do something. [Show examinee the geometric figures stimulus page.] Look at these pictures and point to the triangle, then point to the square, and then point to the circle.

| Correct response | Observed response |
| :---: | :---: |
| $\triangle$ |  |
| $\square$ |  |
| $\bigcirc$ |  |

## READING

[Show examinee the word stimulus page.] Please do what this says to do.
OPEN YOUR MOUTH

## WRITING

[Place the blank piece of paper in front of the examinee and provide a pen or pencil.]
Please write a sentence. [lf examinee does not respond, say: Write about where you live.]
Score 1 point if the sentence is comprehensible and contains a subject and a verb. Ignore errors in grammar or spelling.

## DRAWING

[Display the intersecting pentagons on the stimulus form and provide a pen or pencil.] Please copy



OPEN YOUR MOUTH

$\qquad$
$\qquad$
EXAMINER'S INITIALS: $\qquad$

# CD2 CASE HISTORY FORM <br> (Visit 2) 

AGE $\qquad$ years Date of Birth $\qquad$ Gender: M or F (please circle)

## I. Etiology (Cause) of hearing loss (please choose one answer)

$\square$ Presbycusis (aging) $\square$ Noise exposure $\quad \square_{\text {Unknown }} \square_{\text {(I do not have hearing loss) }}$
II. Duration
$\square$ Not Applicable
A. Duration of loss $\qquad$ year(s)
B. How much time passed from the time when you or others (family, friends, co-workers) first suggested you might have trouble hearing, and the time that you made an appointment with a doctor or an audiologist to have your hearing tested?
___ year (s)

## III. Noise exposure history

Have you worked previously in a noisy job (factory, carpentry, etc.)? $\qquad$ Yes $\qquad$ No If "Yes", how many years? $\qquad$
Were you ever in the military? $\qquad$ Yes $\qquad$ No If "Yes", how many years? $\qquad$
Do you have any noisy hobbies (woodworking, snowmobiles, band, etc.)? $\qquad$ Yes $\qquad$ No If "Yes", how many years? $\qquad$

## IV. Educational level

Highest Level of Education Completed: (please choose one answer)
$\square$ Less than high school
$\square$ High school
$\square$ Some college
$\square$ Vocational or technical degree
$\square$ College degree
$\square$ Some graduate school
$\square$ Master's degree
$\square$ Doctorate or medical degree

## V. Occupation

Previous or current occupation: (please choose one answer)
$\square$ Laborer
$\square$ Trade union
$\square$ Clerical

How long in that position? $\qquad$ years

If retired, how long? $\qquad$ years
VI. Socioeconomic status (please choose one answer)

Indicate total household annual income for the last tax year (please consider all sources i.e., salary and wages, retirement benefits, investments, rent, etc...)
$\square \$ 5,000-15,000$
$\square$ \$15,000-25,000
$\square$ \$25,000-35,000
$\square$ \$35,000-45,000
$\square>\$ 45,000$

## VII. Hearing Evaluation History

(A) Prior to the just competed hearing test, had you ever received a hearing test like the


When was your most recent test? (check only one item below)
$\square$ within the past 3 months
$\square$ 3-6 months ago
$\square \quad 6-12$ months ago
$\square$ 1-2 years ago
$\square$ more than 2 years ago
Who performed the test? (check only one item below)
$\square$ Audiologist
$\square$ Hearing aid dealer
$\square$ ENT physician
$\square$ Nurse
$\square$ Internet- or Telephone-based test
$\square$ Other $\qquad$
What were the results and/or recommendations? (check only one item below)
$\square$ Hearing loss and should try hearing aids
$\square$ Hearing loss but just retest in a year
$\square$ Hearing was normal
$\square$ No follow-up needed
$\square$ Other $\qquad$
Did you follow through on the recommendations? $\square$ Yes $\square$ No What did you do? $\qquad$
(B) Prior to the just competed hearing test, had you ever received a hearing screening (a quick check of your hearing, but not a full hearing test like you just had)?
$\square$ Yes $\quad \square$ No (If "No", please skip to $C$, next page)
When was your most recent screening? (check only one item below)
$\square$ within the past 3 months
$\square$ 3-6 months ago
$\square \quad 6-12$ months ago
$\square$ 1-2 years ago
$\square$ more than 2 years ago
Who performed the screening? (check only one item below)
$\square$ Audiologist
$\square$ Hearing aid dealer
$\square$ ENT physician
$\square$ Nurse
$\square$ Internet- or Telephone-based test
$\square$ Other $\qquad$

What were the results and/or recommendations? (check only one item below)
$\square$ Did not pass and should have a full hearing evaluation
$\square$ Did not pass and no follow-up recommended
$\square$ Passed
$\square$ Other $\qquad$
Did you follow through on the recommendations? $\square$ Yes $\square$ No
What did you do? $\qquad$
C. Prior to the just competed hearing test, had you ever received an ear examination (where someone looks into your ears with a light)?
$\square$ yes
$\square$ No
(If "No", please go to next page)

When was your most recent ear exam? (check only one item below)
$\square$ within the past 3 months
$\square$ 3-6 months ago
$\square \quad 6-12$ months ago
$\square$ 1-2 years ago

$\square$more than 2 years ago

Who performed the ear exam? (check only one item below)
$\square$ ENT physician

## $\square$ Nurse

$\square$ Primary care physician (Family doctor)
$\square$ Other $\qquad$
What were the results and/or recommendations? (check only one item below) $\square$ Ear wax removed and hearing evaluation recommended $\square$ Ear wax removed and hearing evaluation NOT recommended
$\square$ Hearing evaluation recommended
$\square$ Imaging (X rays, CAT scan, etc.) recommended
$\square$ Medication prescribed
$\square$ No follow-up recommended
$\square$ Other $\qquad$
Did you follow through on the recommendations? $\quad \square$ Yes $\square$ No
What did you do? $\qquad$

## VIII. Previous hearing aid experience

Before using the study hearing aids you are currently wearing, have you ever used other hearing aid(s), even for a brief period of time?

## $\square_{\text {Yes }} \square_{\text {No }}$

If you answered "yes" to the question above, please provide the following information:
A. Approximate date non-study hearing aids were last worn: $\qquad$
B. Total amount of time previous non-study hearing aid(s) were used: (please choose one answer)
$\square$ Less than or equal to 6 weeks
$\square 7$ weeks-11 months
$\square$ 1-3 years
$\square 4$-10 years
$\square 10$ years
C. Monaural or Binaural Use: (please choose one answer)
$\square$ Consistently wore just the RIGHT aid
$\square$ Consistently wore just the LEFT aid
$\square$ Wore both aids consistently
D. During the time of use, did you typically wear your non-study hearing aid(s) for: (please choose one answer)
$\square<1$ hour per day
$\square$ 1- 3 hours per day
$\square 4$-6 hours per day
$\square$ 7-10 hours per day
$\square>10$ hours per day

## IX. Medications

Please list any current medications and indicate both your dosage and how long you've been taking each one.

## X. Living Arrangements (please choose one answer)

$\square$ Live alone independently
$\square$ Live with spouse or significant other
$\square$ Live with other family members
$\square$ Live with spouse and other family members
XI. Social Activities (such as visiting with a friend or in a group, entertaining in your home, eating in a restaurant, playing cards, etc.) (please choose one answer)
$\square$ Regularly participate in social activities with family/friends (almost daily)
$\square$ Occasionally participate in social activities with family/friends (weekly)
$\square$ Rarely participate in social activities with family/friends (monthly or less)
XII. Outside Interests (such as religious services, movies, theatre, sporting events, lectures, etc.) (please choose one answer)
$\square$ Regularly attend outside activities (once or more a week)
$\square$ Occasionally attend outside activities as above (monthly)
$\square$ Rarely attend outside activities (once or twice each year)

## XIII. Ethnic Category (check one)

$\square$ Hispanic or Latino $\quad \square$ Not Hispanic or Latino
XIV. Racial Category (check all that apply)
$\square$ American Indian/ Alaska Native
$\square$ Asian
$\square$ Native Hawaiian or Other Pacific Islander
$\square$ Black or African American
$\square$ White
XV. Medical Conditions/Specific Medications

Please answer "yes" or "no" to the following questions:

1. Do you have diabetes?
2. If yes to \#1, is your diabetes well-controlled by medication or diet?

3. Do you currently take a diuretic (Lasix, etc.)?
4. Do you currently take 8 or more aspirins per day?
$\square$

$\square$

Created 10-1-10
Edited 8-4-17
$\qquad$

## EXAMINER'S INITIALS:

$\qquad$

## HA Status \#1 (do at end of visit 2)

As you know, you selected your own hearing aids at the previous visit. These hearing aids were not programmed specifically for your hearing loss. You also did not receive any instruction from an audiologist about the use, care and maintenance of your hearing aids. Would you be interested in having the hearing aids re-programmed for your loss, receiving instruction on the use and care of the hearing aids and trying them for another 4 weeks at no additional cost to you? You would still have the opportunity to return them for a full refund after the 4 weeks is over.

## If the subject chooses to have hearing aids re-programmed:

You will return for Visit 3 in a few days for the re-programming and orientation to your hearing aids. Then in 4 weeks, you will return for Visit 4 during which we will do a few additional tests. At Visit 4 you will decide if you would like to keep your hearing aids or return them for a full refund.

## Status of HAs:

Kept study hearing aid(s) as-is

Kept study hearing aid(s) and requested adjustments/reprogramming $\qquad$

Returned study hearing aids

## Visit 3 Audiologist Checklist

Enter participant audiogram in Aventa; enter audiogram and RECD into Verifit
Audiologist chooses tube and dome size

|  | Right | Different from subject <br> choice RIGHT $(\mathrm{y} / \mathrm{n})$ | Left | Different from subject <br> choice LEFT $(\mathrm{y} / \mathrm{n})$ |
| :--- | :--- | :--- | :--- | :--- |
| Tube size |  |  |  |  |
| Dome size |  |  |  |  |

___ Unaided speechmap R/L. Probe tubes only. Print to usb and XML.

| SII (V3Unaided) | 65 |
| :--- | :--- |
| Right |  |
| Left |  |

_Reset hearing aids to initial fit
Generate first fitting and verify P 1 is set appropriately:
a. Fitting formula: NAL-NL2.
b. Fitting should default to "Experienced Non-Linear"
c. Select "Fitting" tab (top toolbar) and turn "Binaural Correction" OFF
d. Change Physical Properties to the size of dome and tube chosen.
e. Change P1 to "Basic+Softswitching" if it is not already on that setting.
i. Directionality should be FIXED
ii. Directional Mix: Very Low
iii. DFS Ultra: Moderate
iv. Expansion: Off
v. Noise Tracker II: Per Environment
vi. Wind Guard: Off
f. Click on "Environmental Optimizer" and click "Reset to..." then select "0 dB" so that all levels are at zero.
g. If applicable, click on "Tinnitus Sound Generator" and ensure it is OFF
_Real Ear Measurement at 65dB SPL (using participant's RECD) and fine tuning
-Target-Matching Rule: for $250-4000 \mathrm{~Hz}$, all measured values within 4 dB of target at ALL frequencies. Will accept fit after initial fine tuning attempts if only within 7 dB of target at all frequencies. (If unable to meet $\pm 7 \mathrm{~dB}$ criterion, subject will NOT be exited from study but will likely need to replace that subject in the study. FLAG file and let Dr. Humes and CTC know.)

Real Ear Measurements following fine tuning: 55 dB SPL and 75 dB SPL (do not fine tune)

| SII (V3MAP) | 65 | 55 | 75 |
| :--- | :--- | :--- | :--- |
| Right |  |  |  |
| Left |  |  |  |

MPO measurement at $\mathbf{8 5}$ dB SPL [Instructions: "You will hear several loud beeps that get higher in pitch. The beeps will be loud, but if it gets uncomfortably loud, (refer to LDL chart), raise your hand. It is very quick, so try to raise your hand as quickly as possible. We can repeat if necessary."]
\# times MPO adjusted (-4 dB increments)

|  | 250 | 500 | 750 | 1000 | 1500 | 2000 | 3000 | 4000 | 6000 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Right |  |  |  |  |  |  |  |  |  |
| Left |  |  |  |  |  |  |  |  |  |

\# times MPO adjusted (-2 dB increments)

|  | 250 | 500 | 750 | 1000 | 1500 | 2000 | 3000 | 4000 | 6000 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Both |  |  |  |  |  |  |  |  |  |

___ Review beeps in Aventa software
___Program VC based on HFPTA

| HFPTA (1,2, <br> \&4kHz) | VC P1 | VC P2 | VC P3 | VC P4 |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{\leq 2 1}$ | 0 | -2 | -4 | 2 |
| $\mathbf{2 2 - 2 9}$ | 0 | -3 | -6 | 3 |
| $\mathbf{3 0 - 3 8}$ | 0 | -4 | -8 | 4 |
| $\mathbf{3 9 - 4 7}$ | 0 | -5 | -10 | 5 |
| $\mathbf{4 8 - 5 5}$ | 0 | -6 | -12 | 6 |
| $\mathbf{5 6 - 6 4}$ | 0 | $-\mathbf{7}$ | -14 | 7 |
| $\mathbf{\geq 6 5}$ | 0 | -8 | -16 | 8 |

_Final Coupler Measurements (no fine tuning)

| SII (V3SIMMAP) | 65 | 55 | 75 |
| :--- | :--- | :--- | :--- |
| Right |  |  |  |
| Left |  |  |  |

__Print measurements to USB
__Complete HA Orientation (with guest if applicable)
__Print R\&L SIMMAP and place in folder
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## ORIENTATION CHECKLIST (Visit 3)

## FEATURES OF HEARING AID:

(1) User manual
(2) Warranty Information (1 year)
(4) 4 week trial period

## COMPONENTS AND FEATURES:

(1) Microphone
(2) Receiver
(3) Sound bore
(4) Program button for VC
(5) Battery door
(6) Thin tube
(7) Dome
(8) Anchor
(9) Left/Right indicator
(10) Difference between beeps

## BATTERIES:

(1) Size (312/ brown)
(2) Type (Zinc-air)
(3) Cost (~\$1/battery)
(4) Places to purchase
(5) Removal of tab for zinc air
(6) Battery life (5-7 days of typical use)
(7) Toxicity, keep away from children, pets and medication
(8) Open battery door when not in use
(9) Insertion and removal of battery (+vs-)
(10) PRACTICE

## INSERTION AND REMOVAL OF AID:

(1) Right vs Left
(2) Turning aid on and off
(3) Do over a soft surface
(4) Orientation of aid in hand
(5) Comfort in ear
_(6) PRACTICE

## USE AND CARE OF AIDS:

___(1) Brush and wire to clean thin tube and dome
(2) Wipe with soft cloth
(3) Avoid moisture and extreme temperature
(4) Do not use hair spray, cologne, etc with aid in ear
___(5) Open battery door when not in use (helps prevent moisture damage) and store in case with lid open
___(6) Keep hearing aids away from small children and pets
___(7) Telephone use
(8) PRACTICE
(9) PRACTICE switching volume levels
(10) Initial use of aid
-Situations: quiet before noise; 1 on 1 before group situation -Hours worn: Wear both aid s at least a MINIMUM of 4 hours/ day for the first week, increase by AT LEAST 2 hours/day every week until wearing them full time by followup appointment

## HEARING AID ADJUSTMENT:

(1) Benefits/Limitations
(2) Discuss communication strategies
(3) Call CTC with questions during 4 week trial period
$\qquad$
$\qquad$
EXAMINER'S INITIALS: $\qquad$

## AS-WORN CST FORM \#1 (Visit 4) TRACK 40

(CST 50 dB HL; +3 dB SNR; SP: 0 degrees N: 180 degrees; Binaural; Aided)
Text for the CONNECTED SPEECH TEST
(scoring words are capitalized, mark through each incorrect response in ink with an $\boldsymbol{X}$, and record the total number of words correct below)

## Passage: 1- DONKEY

Donkeys are SMALLER, sturdier relatives of HORSES.
The WILD donkey is SHAPED like a ZEBRA.
It is four FEET high at the SHOULDERS.
The donkey's COAT is GRAY and black.
It HAS a DARK LINE along its BACK.
This ANIMAL is EXTREMELY INTELLIGENT.
SURPRISINGLY, it is also a SWIFT RUNNER.
Man has TAMED donkeys for his personal use.
Donkeys are OFTEN used as BEASTS of burden.
All donkeys are NOTED for their HUGE EARS.

## Passage 2- GUITAR

The guitar is a stringed MUSICAL INSTRUMENT. Guitars are used to ACCOMPANY SINGING. They are played in GROUPS with other INSTRUMENTS. A POPULAR style of guitar HAS a flat top.
It is made of wood and HAS six STRINGS.
You TUNE a guitar BY comparing OCTAVE NOTES.
The FINGERBOARD is HELD with the LEFT hand. The MUSICIAN'S right hand PULLS the strings. He plays BASS NOTES with his RIGHT thumb.
OTHER notes are PLAYED with the first THREE fingers.

[^1]$\qquad$ TEST DATE: $\qquad$

EXAMINER INITIALS: $\qquad$ *CHECK PAINT*

## HEARING AID PHYSICAL INSPECTION CHECKLIST

VISIT 4
**Do not open battery door until after as worn speechmapping is complete**

RIGHT

## Otoscopy/Ear exam

Hearing aid inserted correctly? yes $\square$ no $\square \quad$ yes $\square$ no $\square$
If no, describe: $\qquad$
Unremarkable?
EAC red?
Excessive cerumen?
Other: $\qquad$
LEFT

$$
5-2+2=2
$$

$\qquad$

## Hearing Aid

| Tubing intact? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| :--- | :---: | :---: | :---: | :---: |
| Tubing kinked? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Tubing blocked with cerumen? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Dome intact? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Dome blocked with cerumen? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| Dome discolored? | yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |

## RUN AS WORN SIMULATED SPEECH MAPPING

| SII (V4AWSIMMAP) | 65 | 55 | 75 |
| :--- | :--- | :--- | :--- |
| Right |  |  |  |
| Left |  |  |  |

## Listening Check:

Current program $\quad 1$| 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

**Return hearing aid to program 1 after recording current program**
Acceptable sound quality? yes $\square$ no $\square$ yes $\square$ no $\square$
If no, describe:

## Battery:

$$
\text { Sufficient charge? }(\geq 3 / 4 \text { charge }) \quad \text { yes } \square \quad \text { no } \square \quad \text { yes } \square \quad \text { no } \square
$$

Was battery changed?
Was tubing changed?
Were domes changed?

| yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| :--- | :--- | :--- | :--- |
| yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |
| yes $\square$ | no $\square$ | yes $\square$ | no $\square$ |

## RUN POST MAINTENANCE SIMULATED SPEECH MAPPING

| SII (V4PMSIMMAP) | 65 | 55 | 75 |
| :--- | :--- | :--- | :--- |
| Right |  |  |  |
| Left |  |  |  |

**Print R\&L PM SIMMAP and give to Dana**
$\qquad$
$\qquad$
EXAMINER'S INITIALS: $\qquad$

# AIDED CST FORM \#2 (Visit 4) 

## TRACK 51

(CST 50 dBHL; +3 dB SNR; SP: 0 degrees N: 180 degrees; Binaural; Aided)
Text for the CONNECTED SPEECH TEST
(scoring words are capitalized, mark through each incorrect response in ink with an $\boldsymbol{X}$, and record the total number of words correct below)

## Passage: 1-EAR

The ear is an important SENSE ORGAN.
The ear HAS two main PURPOSES.
It lets MAN HEAR and MAINTAIN his balance.
GOOD hearing permits PEOPLE to understand SPEECH.
Through speech, we EXCHANGE ideas and OPINIONS.
HEARING ALSO makes man AWARE of DANGER.
The ear's BALANCE mechanism helps us walk UPRIGHT.
DAMAGE to this section causes STAGGERING.
The PERSON also GETS disoriented and DIZZY.
This kind of dizziness is CALLED VERTIGO.

## Passage 2- LIVER

The liver is a very important INTERNAL organ.
Its MAIN FUNCTION is to filter the BLOOD.
The liver is the LARGEST organ in MAN.
It can WEIGH three to four POUNDS.
The liver is DARK RED or CHOCOLATE colored.
It is LOCATED in the MIDDLE SECTION of the BODY.
It FITS closely to the intestines and kidneys.
It is POSSIBLE to TRANSPLANT a liver.
This ADVANCED operation is VERY expensive.
HOWEVER, it is RESPONSIBLE for SAVING MANY LIVES.
$\qquad$ TEST DATE: $\qquad$

## EXAMINER'S INITIALS:

$\qquad$

## HEARING AID DECISION FORM \#1

1. Based on your experience over the past 4 weeks, are you going to keep the aids?

| RIGHT: | YES | NO |
| :--- | :--- | :--- |
| LEFT: | YES | NO |

If NO, ask why? (record choices for data entry, don’t give choices to subject)

> RIGHT LEFT

Can't hear in noise
Can't hear on phone $\qquad$
$\qquad$
Can't get used to sound $\qquad$
$\qquad$
Feedback $\qquad$
$\qquad$
Uncomfortable $\qquad$
$\qquad$
Costs too much $\qquad$
$\qquad$
No benefit $\qquad$
$\qquad$
Other: $\qquad$

## Datalogging Form-Visit 4

SUBJECT \#: $\qquad$

## EXAMINER:

$\qquad$

TEST DATE: $\qquad$

## RIGHT <br> LEFT

Total \# hours used:

Average hours used per day: $\qquad$

Since date

## Program Usage (\%)

## Program 1:

## Program 2:

Program 3:

Program 4:
$\qquad$ 1. As-worn aided CST
2. Aided PHAP (subj does this while physical inspection is completed)
3. Aided HHIE (subj does this while physical inspection is completed)
4. Physical inspection Checklist
a. As-worn speechmap
i. Test $\rightarrow$ Testbox measures $\rightarrow$ speechmap
ii. Run $65,55,75 \mathrm{~dB}$ SPL and MPO
iii. Print results in table format to USB and save to XML
b. Hearing aid maintenance
c. Post-maintenance speechmap
i. Run $65,55,75 \mathrm{~dB}$ SPL and MPO
ii. Print results in table format to USB and save to XML
$\qquad$ 5. Post-maintenance aided CST
6. Hearing aid decision form \#2
7. Datalogging
a. Record datalogging and print report
b. Reset datalogging
c. Save to session and hearing aid.
$\qquad$ 8. Adjustment of hearing aids if requested
a. Run post-adjustment SIMMAP; record SIls below; print to usb
b. complete hearing aid adjustment log
9. Run DFS
a. Run post-DFS SIMMAP; record SIls below; print to usb
10. Complete hearing aid questions form if applicable
11. Complete hearing aid status form \#2
12. Take subject to CTC for check out

| SII (V4PASIMMAP) | 65 | 55 | 75 |
| :--- | :--- | :--- | :--- |
| Right |  |  |  |
| Left |  |  |  |


| SII (V4POSTDFSSIMMAP) | 65 | 55 | 75 |
| :--- | :--- | :--- | :--- |
| Right |  |  |  |
| Left |  |  |  |

SUBJECT \#: $\qquad$ TEST DATE: $\qquad$

## VISIT 4 HEARING AID ADJUSTMENT LOG

EXAMINER: $\qquad$

RIGHT:

## LEFT:

SUBJECT \#: $\qquad$

VISIT 4
EXAMINER: $\qquad$

## MISCELLANEOUS QUESTIONS FROM SUBJECTS ABOUT HEARING

AIDS

1. $\qquad$
2. $\qquad$
3. $\qquad$
4. $\qquad$
5. $\qquad$
6. $\qquad$
7. $\qquad$
8. $\qquad$
9. $\qquad$
10. $\qquad$
$\qquad$

## EXAMINER'S INITIALS:

$\qquad$

HA Status \#2 (do at end of Visit 4)

Status of HAs:

Kept Study Aid(s) as-is
Kept study aids and requested adjustments/reprogramming

Returned study aids

## RIGHT LEFT

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
EXAMINER'S INITIALS: $\qquad$

## CD2 EXIT FORM

## Status of Subject:

$\square$ Discontinued (Complete Section A)
$\square$ Completed Study and elected to keep hearing aids
$\square$ Completed Study and is returning hearing aids

## Section A: Reason for Subject Exit

## Development of Any Exclusion Criteria:

$\square$ Cognitive/Language-Based Condition
$\square$ Medical/Surgical Ear Condition
$\square$ Shape of External Ear Canal
$\square$ Fluctuating Hearing Loss
$\square$ Participant in other hearing aid related Clinical Trials
$\square$ Disease/Condition Affecting Hearing/Cognition
$\square$ Medication Affecting Hearing/Cognition
$\square$ VIII Nerve Tumor

## Development of Any Study-Related Medical Conditions:

$\square$ Allergic Reaction
$\square_{\text {Infection }}$
$\square$ Accumulation of Ear Wax
$\square$ Adverse Effect

## Miscellaneous:

$\square_{\text {Inability/Unwillingness to Maintain }}$
$\square$ Death or Disability Wearing Schedule
$\square$ Relocation of Subject
$\square$ Over 3 Weeks Cumulative Off The Ear Time
$\square$ Threshold Change by More Than 10 dB
$\square_{\text {Lost to Follow-Up }}$
$\square$ Failure to Follow Instructions
$\square$ Lack of Motivation
$\square$ Inability/Unwillingness to Participate
$\square$ Other $\qquad$

## CD2 Study- PHAP UNAIDED- Visit 1

SUBJECT \#: $\qquad$ TEST DATE: $\qquad$
EXAMINER'S INITIALS: $\qquad$

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-time (50\%) G = Never (1\%)
B = Almost always (87\%) E=Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)

1. I can understand others in a small group situation if there is no noise.
A B C D E F G
2. When I am listening to a speaker who is talking to a large group, and I am seated toward the rear of the room, I must make an effort to listen.
A B C
D E
F G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
3. Women's voices sound "shrill."
A B
C
D E
F G
4. I find that most people speak too softly.
A B C
D E F
G
5. I have trouble comprehending speech when I am in a busy department store talking with the clerk.
A B C D E F G
6. I can understand my family when they speak softly to me.
A
B
C
D E
F G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
7. I can understand a speaker in a small group, even when those around us are speaking softly to each other.
A B C
D E F
G
8. I can understand conversations even when several people are talking.
A B C
D E F
G
9. When the telephone rings, the sound startles me.
A B C D E F G
10. I have to ask people to repeat themselves when there is background noise.
A
B
C
D
E
F G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about 75\% of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
$A=\operatorname{Always}(99 \%) \quad D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
11. When I am in a crowded grocery store, talking with the cashier, I can follow the conversation.
A B C D E F G
12. When I am having a conversation, and people are talking quietly nearby, I have to strain to understand the speaker.
A B C
D E F
G
13. If a car horn sounds, it makes me jump.
A B C D E F G
14. When I am talking to a group and someone from the back of the room asks a question, I have to ask someone up front to repeat the question.

A B C D E F G
PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
15. The sounds of construction work are uncomfortably loud.
A B C D E F G
16. When I am in a crowded reception room waiting to be called, I miss hearing my name.
A B C
D E F
G
17. When I am having a quiet conversation with a companion, I have difficulty understanding.
A B C
D E F
G
18. When I am listening to the news on the car radio, and family members are talking, I have trouble hearing the news.

A B C D E F G
PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
19. The sound of screeching tires is uncomfortably loud.
A B C D E F G
20. I can understand conversation when I am walking with a friend through a quiet park.
A B C
D E
F G
21. The sound of a fire engine siren close by is so loud that I need to cover my ears.
A B C
D E
F
G
22. When I am in conversation with someone across a large empty room (such as an auditorium), I understand the words.

A B C D E F G
PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
23. When I am on a busy street, asking someone for directions, I have to ask him to repeat them before I really understand.
A
B C
D E
F G
24. The sound of running water, such as a toilet or shower, is uncomfortably loud.
A B C
D E
F G
25. When a speaker is addressing a small group, and everyone is listening quietly, I have to strain to understand.
A B
C
D E
F
G
26. I have trouble understanding dialogue in a movie or at the theater.
A B C D E F

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
27. When I am in a crowd with a friend who doesn't want others to overhear our conversation, I have trouble hearing as well.
A B C D E F G
28. When I am at the dinner table with several people, and am trying to have a conversation with one person, understanding speech is difficult.

A B C D $\quad$ E $\quad$ F $\quad$ G
29. When I'm in a quiet conversation with my doctor in an examination room, it is hard to follow the conversation.

A B C D $\quad$ E $\quad$ F $\quad$ G
30. I have trouble understanding others when an air conditioner or fan is on.
A B C D E F

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
$\mathrm{E}=$ Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
31. I miss a lot of information when I'm listening to a lecture.
A B
C
D E F
G
32. I can understand my family when they talk to me a normal voice.
A B C
D E F
G
33. I have to ask people to repeat themselves in one-on-one conversation in a quiet room.

A B C D E F G
34. I have difficulty hearing conversation when I'm with one other person at home.
A B C D $\quad$ E $\quad$ F $\quad$ G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
35. When I am riding in the back seat of a car, and the driver talks to me from the front, I have to strain to understand.
A B
C
D E
G
36. Music sounds distorted to me.
A B C D E F G
37. When I'm talking with the teller at the drive-in window of my bank, I understand the speech coming from the loudspeaker.

A B C D E F G
38. When I am in a small office, interviewing or answering questions, I have difficulty following the conversation.
A
B
C
D E
F
G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
$D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%) E = Occasionally (25\%)
C = Generally (75\%)
F = Seldom (12\%)
39. When a lecturer is giving instructions, I can easily follow along.
A B C D E F G
40. Everyday sounds are too soft for me to hear clearly.
A B
C
D E
G
41. I avoid using certain appliances (blender, vacuum cleaner, etc.) because their loudness is uncomfortable.

A B C D E F G
42. When I am in a busy restaurant and the waitress is taking my order, I can comprehend her questions.
A
B
C
D E
F G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
$D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%)
$\mathrm{E}=$ Occasionally (25\%)
C = Generally (75\%)
F = Seldom (12\%)
43. I avoid crowds because the noise is uncomfortably loud.
A B C
D E F
G
44. When I am at a large, noisy party, conversation is very confusing.
A B
C
D E
F G
45. When I am in a theater watching a movie or play, and the people around me are whispering and rustling paper wrappers, I can still make out the dialogue.
A B C
D E F
G
46. When I am in a quiet restaurant, I can understand soft conversation.
A B
C
D E
F
G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle $C$ for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
$\mathrm{E}=$ Occasionally (25\%)
$\mathrm{C}=$ Generally (75\%) $\quad \mathrm{F}=$ Seldom (12\%)
47. I can't understand the TV news when the volume is set by a normalhearing person.
A B
C
D E
F
G
48. I can understand conversation during a quiet dinner with my family.
A B C
D E
F
G
49. When I am listening to the news on my car radio, and the car windows are closed, I understand the words.
A B C
D E
F
G
50. The sound quality of music isn't very good.
A B
C
D E
F
G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
F = Seldom (12\%)
51. The ring of a telephone sounds "tinny."
A B C
D E
G
52. I understand the newscaster when I am watching TV news at home alone.

A B C D E F G
53. I can follow the words of a sermon when listening to a religious service.
A B C D E F G
54. When I am at home, talking with someone who is in another room, following the conversation is difficult.
A B
C
D E
G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about 75\% of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
55. Unexpected sounds like a smoke detector or alarm bell are uncomfortable.

A B C D E F G
56. When I'm talking with a friend outdoors on a windy day, I miss a lot of the conversation.
A B C D E F G
57. Everyday sounds that don't bother others are too loud for me.
A B C
D E F
G
58. It's hard for me to understand what is being said at lectures or church services.

$$
\begin{array}{lllllll}
A & B & C & D & E & F & G
\end{array}
$$

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
F = Seldom (12\%)
59. When I am in a room with the door closed and I want to over-hear a conversation going on outside the door, I have to strain to listen.

A B C D E F G
60. People's voices sound unnatural.
A B C D E F G
61. When I am in face-to-face conversation with one member of my family, I can easily follow along.

A B C D E F G
62. When I am in a meeting with several other people, I can comprehend speech.

A B C D $\quad$ E $\quad$ F $\quad$ G

PHAP Instructions: Please answer each question based on your listening experiences recently.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about 75\% of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
$\mathrm{F}=$ Seldom (12\%)
63. Traffic noises are too loud.

A B C D E F G
64. The sound of glass breaking is uncomfortably loud.

A B C D E F G
65. I can communicate with others when we are in a crowd.
A B C
D E
F G
66. I can understand speech when I am talking to a bank teller, and I am one of a few customers at the bank.
A B C
D E
F G

PHAB Score Sheet
Familiar Talkers (FT) 1*, 20*, 32*, 48*, 52*, 61*, 66*
Ease of Communication (EC) 12, 17, 25, 29, 33, 34, 38
Reverberation (RV) 2, 14, 22*, 26, 31, 39*, 45*, 53*, 58
Reduced Cues (RC) 4, 6*, 35, 37*, 46*, 47, 49*, 54, 59
Background Noise (BN) 5, 7*, $8^{*}, 10,11^{*}, 16,18,23,27,28,30,42^{*}, 44$, 56, 62*, 65*

Aversiveness of Sounds (AV) 9, 13, 15, 19, 21, 24, 41, 43, 55,
57, 63
Distortion of Sounds (DS) 3, 36, 40, 50, 51, 60
$\qquad$
EXAMINER'S INITIALS: $\qquad$
Hearing Handicap Inventory for the Elderly (HHIE) (UNAIDED)

The purpose of this scale is to identify the problems your hearing loss may be causing you. Check 'Yes', 'Sometimes', or 'No' for each question. Do not skip any questions.

| S-1. Does a hearing problem cause you <br> to use the phone less often than you <br> would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| :--- | :--- | :--- | :--- |
| E-2. Does a hearing problem cause you <br> to feel embarrassed when meeting new <br> people? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-3. Does a hearing problem cause you <br> to avoid groups of people? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-4. Does a hearing problem make you <br> irritable? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-5. Does a hearing problem cause you <br> to feel frustrated when talking to <br> members of your family? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-6. Does a hearing problem cause you <br> difficulty when attending a party? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-7. Does a hearing problem cause you <br> to feel "stupid" or "dumb" | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-8. Do you have difficulty hearing <br> when someone speaks in a whisper? | $\square$ Yes | $\square$ Sometimes | $\square$ No |


| E-9. Do you feel handicapped by a <br> hearing problem? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| :--- | :--- | :--- | :--- |
| S-10. Does a hearing problem cause you <br> difficulty when visiting friends, relatives <br> or neighbors? | $\square$ Yes | $\square$ Sometimes $\quad \square$ No |  |
| S-11. Does a hearing problem cause you <br> to attend religious services less often <br> than you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-12. Does a hearing problem cause you <br> to be nervous? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-13. Does a hearing problem cause you <br> to visit friends, relatives, or neighbors <br> less often than you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-14. Does a hearing problem cause you <br> to have arguments with family <br> members? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-15. Does a hearing problem cause you <br> difficulty when listening to TV or radio? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-16. Does a hearing problem cause you <br> to go shopping less often than you would <br> like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-17. Does any problem or difficulty <br> with your hearing upset you at all? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-18. Does a hearing problem cause you <br> to want to be by yourself? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-19. Does a hearing problem cause you <br> to talk to family members less often than <br> you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |


| E-20. Do you feel that any difficulty <br> with your hearing limits or hampers your <br> personal or social life? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| :--- | :--- | :--- | :--- |
| S-21. Does a hearing problem cause you <br> difficulty when in a restaurant with <br> relatives or friends? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-22. Does a hearing problem cause you <br> to feel depressed? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-23. Does a hearing problem cause you <br> to listen to TV or radio less often than <br> you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-24. Does a hearing problem cause you <br> to feel uncomfortable when talking to <br> friends? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-25. Does a hearing problem cause you <br> to feel left out when you are with a <br> group of people? | $\square$ Yes | $\square$ Sometimes | $\square$ No |

## CD2 Study- PHAP AIDED- Visit 2

SUBJECT \#: $\qquad$ TEST DATE: $\qquad$
EXAMINER'S INITIALS: $\qquad$

PHAP Instructions: Please answer each question based on your listening experiences WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-time (50\%) G = Never (1\%)
B = Almost always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)

1. I can understand others in a small group situation if there is no noise.
A B
C
D E
F G
2. When I am listening to a speaker who is talking to a large group, and I am seated toward the rear of the room, I must make an effort to listen.
A B
C
D E
F G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
$\mathrm{F}=$ Seldom (12\%)
3. Women's voices sound "shrill."
A B C D E F
G
4. I find that most people speak too softly.
A B C
D E
F G
5. I have trouble comprehending speech when I am in a busy department store talking with the clerk.
A B C
D E
F G
6. I can understand my family when they speak softly to me.
A B C
D E
F
G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
$F=$ Seldom (12\%)
7. I can understand a speaker in a small group, even when those around us are speaking softly to each other.
A B C D E F G
8. I can understand conversations even when several people are talking.
A B C
D E F
G
9. When the telephone rings, the sound startles me.
A
B
C
D E
F
G
10. I have to ask people to repeat themselves when there is background noise.

A B C D E F G
PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.

| $A=$ Always (99\%) | $D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never~(1\% )~}$ |
| :--- | :--- |
| $B=$ Almost Always (87\%) | $E=$ Occasionally (25\%) |
| $C=$ Generally (75\%) | $F=$ Seldom (12\%) |

11. When I am in a crowded grocery store, talking with the cashier, I can follow the conversation.
A B C D E F G
12. When I am having a conversation, and people are talking quietly nearby, I have to strain to understand the speaker.
A B C
D E
F G
13. If a car horn sounds, it makes me jump.

A B C D E F G
14. When I am talking to a group and someone from the back of the room asks a question, I have to ask someone up front to repeat the question.
A B C
D E F
G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
$D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%) E = Occasionally (25\%)
C = Generally (75\%)
F = Seldom (12\%)
15. The sounds of construction work are uncomfortably loud.
A B C D $\quad$ E $\quad$ F $\quad$ G
16. When I am in a crowded reception room waiting to be called, I miss hearing my name.

A B C D $\quad$ E $\quad$ F $\quad$ G
17. When I am having a quiet conversation with a companion, I have difficulty understanding.

A B C D E F G
18. When I am listening to the news on the car radio, and family members are talking, I have trouble hearing the news.
A
B C
D E F
G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.

A = Always (99\%)
B = Almost Always (87\%)
$\mathrm{C}=$ Generally (75\%) $\quad \mathrm{F}=$ Seldom (12\%)
19. The sound of screeching tires is uncomfortably loud.
A B C D E F G
20. I can understand conversation when I am walking with a friend through a quiet park.
A B C D E F
21. The sound of a fire engine siren close by is so loud that I need to cover my ears.
A B
22. When I am in conversation with someone across a large empty room (such as an auditorium), I understand the words.
A
B
C
D E
F
G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
F = Seldom (12\%)
23. When I am on a busy street, asking someone for directions, I have to ask him to repeat them before I really understand.

A B C D $\quad$ E $\quad$ F $\quad$ G
24. The sound of running water, such as a toilet or shower, is uncomfortably loud.
A B
C D E
F G
25. When a speaker is addressing a small group, and everyone is listening quietly, I have to strain to understand.
A
B
C
D E
F G
26. I have trouble understanding dialogue in a movie or at the theater.
A B C D E F

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
$D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
F = Seldom (12\%)
27. When I am in a crowd with a friend who doesn't want others to overhear our conversation, I have trouble hearing as well.
A B
C
D
E
F
28. When I am at the dinner table with several people, and am trying to have a conversation with one person, understanding speech is difficult.
A B
C
D E F
G
29. When I'm in a quiet conversation with my doctor in an examination room, it is hard to follow the conversation.
A B
C
D E
F
G
30. I have trouble understanding others when an air conditioner or fan is on.
A B C D E F

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.

| $A=$ Always (99\%) | $D=$ Half-the-Time (50\%) |
| :--- | :--- |
| $B=$ Almost Always (87\%) | $E=$ Occasionally (25\%) (1\%) |
| $C=$ Generally (75\%) | $F=$ Seldom (12\%) |

31. I miss a lot of information when I'm listening to a lecture.

A B C D E F G
32. I can understand my family when they talk to me a normal voice.

A B C D $\quad$ E $\quad$ F $\quad$ G
33. I have to ask people to repeat themselves in one-on-one conversation in a quiet room.
A B C
D E F
G
34. I have difficulty hearing conversation when I'm with one other person at home.

A B C D E F G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
$D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%)
E = Occasionally (25\%)
C = Generally (75\%)
$F=$ Seldom (12\%)
35. When I am riding in the back seat of a car, and the driver talks to me from the front, I have to strain to understand.
A B
C
D E
F
G
36. Music sounds distorted to me.
A B C
D E F
G
37. When I'm talking with the teller at the drive-in window of my bank, I understand the speech coming from the loudspeaker.
A B C D E F G
38. When I am in a small office, interviewing or answering questions, I have difficulty following the conversation.
A B C D E F G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
$B=$ Almost Always (87\%) $\quad E=$ Occasionally (25\%)

$$
\mathrm{C}=\text { Generally }(75 \%) \quad \mathrm{F}=\text { Seldom }(12 \%)
$$

39. When a lecturer is giving instructions, I can easily follow along.
A B C
D E F
G
40. Everyday sounds are too soft for me to hear clearly.
A B
C
D E
F G
41. I avoid using certain appliances (blender, vacuum cleaner, etc.) because their loudness is uncomfortable.
A B
C
D E
F G
42. When I am in a busy restaurant and the waitress is taking my order, I can comprehend her questions.
A B C D E F G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)

$$
\mathrm{C}=\text { Generally }(75 \%) \quad \mathrm{F}=\text { Seldom }(12 \%)
$$

43. I avoid crowds because the noise is uncomfortably loud.
A B C
D E F
G
44. When I am at a large, noisy party, conversation is very confusing.
A
B
C
D
E
F
G
45. When I am in a theater watching a movie or play, and the people around me are whispering and rustling paper wrappers, I can still make out the dialogue.
A B C
D E F
G
46. When I am in a quiet restaurant, I can understand soft conversation.
A
B
C
D E
F G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%)
E = Occasionally (25\%)

$$
\mathrm{C}=\text { Generally }(75 \%) \quad \mathrm{F}=\text { Seldom }(12 \%)
$$

47. I can't understand the TV news when the volume is set by a normalhearing person.
A B C
D E F
G
48. I can understand conversation during a quiet dinner with my family.
A
B
C
D
E
F
G
49. When I am listening to the news on my car radio, and the car windows are closed, I understand the words.
A
B
C
D E
F G
50. The sound quality of music isn't very good.
$\begin{array}{lllllll}\text { A } & \text { B } & \text { C } & \text { D } & E & F & G\end{array}$

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
$A=\operatorname{Always}(99 \%) \quad D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
51. The ring of a telephone sounds "tinny."
A B
C
D E
F G
52. I understand the newscaster when I am watching TV news at home alone.

A B C D E F G
53. I can follow the words of a sermon when listening to a religious service.

A B C D E F G
54. When I am at home, talking with someone who is in another room, following the conversation is difficult.

A B C D E F G
PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
$A=\operatorname{Always}(99 \%) \quad D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
55. Unexpected sounds like a smoke detector or alarm bell are uncomfortable.
A B C
D E F
G
56. When I'm talking with a friend outdoors on a windy day, I miss a lot of the conversation.
A B C
D E F
G
57. Everyday sounds that don't bother others are too loud for me.
A B
C
D E
F G
58. It's hard for me to understand what is being said at lectures or church services.
A B C
D E F
G

PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is true about $75 \%$ of the time, circle C for that item. If you have not
experienced a particular situation, imagine how you would respond in a similar situation.
A = Always (99\%)
D = Half-the-Time (50\%) G = Never (1\%)
B = Almost Always (87\%) E = Occasionally (25\%)
$\mathrm{C}=$ Generally (75\%) $\quad \mathrm{F}=$ Seldom (12\%)
59. When I am in a room with the door closed and I want to over-hear a conversation going on outside the door, I have to strain to listen.
A B C D E F
60. People's voices sound unnatural.
A
B C
D E
F G
61. When I am in face-to-face conversation with one member of my family, I can easily follow along.
A B
C
D E
F
G
62. When I am in a meeting with several other people, I can comprehend speech.

A B C D E F G
PHAP Instructions: Please answer each question based on your listening experiences recently WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

Please circle the answer that comes closest to your everyday experience. Notice that each choice includes a percentage. You can use this to help you decide on your answer. For example if the statement is
true about $75 \%$ of the time, circle C for that item. If you have not experienced a particular situation, imagine how you would respond in a similar situation.
$A=\operatorname{Always}(99 \%) \quad D=$ Half-the-Time (50\%) $\quad G=\operatorname{Never}(1 \%)$
B = Almost Always (87\%) E = Occasionally (25\%)
$C=$ Generally (75\%) $\quad F=$ Seldom (12\%)
63. Traffic noises are too loud.
A B C
D E
F G
64. The sound of glass breaking is uncomfortably loud.
A
B C
D E
F G
65. I can communicate with others when we are in a crowd.
A B C
D E
F
G
66. I can understand speech when I am talking to a bank teller, and I am one of a few customers at the bank.
A B C
D E
F G

## PHAB Score Sheet

Familiar Talkers (FT) 1*, 20*, 32*, 48*, 52*, 61*, 66*
Ease of Communication (EC) 12, 17, 25, 29, 33, 34, 38

Reverberation (RV) 2, 14, 22*, 26, 31, 39*, 45*, 53*, 58
Reduced Cues (RC) 4, 6*, 35, 37*, 46*, 47, 49*, 54, 59
Background Noise (BN) 5, 7*, $8^{*}, 10,11^{*}, 16,18,23,27,28,30,42^{*}, 44$, 56, 62*, 65*

Aversiveness of Sounds (AV) 9, 13, 15, 19, 21, 24, 41, 43, 55,
57, 63
Distortion of Sounds (DS) 3, 36, 40, 50, 51, 60
$\qquad$
EXAMINER'S INITIALS: $\qquad$
Hearing Handicap Inventory for the Elderly (HHIE) (AIDED)

The purpose of this scale is to identify the problems your hearing loss may be causing you. Check 'Yes', 'Sometimes', or 'No' for each question. Do not skip any questions. Answer these questions based on your listening experiences WITH YOUR HEARING AIDS OVER THE PAST SEVERAL WEEKS.

| S-1. Does a hearing problem cause you <br> to use the phone less often than you <br> would like? | $\square$ Yes | $\square$ Sometimes $\quad \square$ No |  |
| :--- | :--- | :--- | :--- |
| E-2. Does a hearing problem cause you <br> to feel embarrassed when meeting new <br> people? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-3. Does a hearing problem cause you <br> to avoid groups of people? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-4. Does a hearing problem make you <br> irritable? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-5. Does a hearing problem cause you <br> to feel frustrated when talking to <br> members of your family? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-6. Does a hearing problem cause you <br> difficulty when attending a party? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-7. Does a hearing problem cause you <br> to feel "stupid" or "dumb" | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-8. Do you have difficulty hearing <br> when someone speaks in a whisper? | $\square$ Yes | $\square$ Sometimes | $\square$ No |


| E-9. Do you feel handicapped by a <br> hearing problem? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| :--- | :--- | :--- | :--- |
| S-10. Does a hearing problem cause you <br> difficulty when visiting friends, relatives <br> or neighbors? | $\square$ Yes | $\square$ Sometimes $\quad \square$ No |  |
| S-11. Does a hearing problem cause you <br> to attend religious services less often <br> than you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-12. Does a hearing problem cause you <br> to be nervous? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-13. Does a hearing problem cause you <br> to visit friends, relatives, or neighbors <br> less often than you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-14. Does a hearing problem cause you <br> to have arguments with family <br> members? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-15. Does a hearing problem cause you <br> difficulty when listening to TV or radio? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-16. Does a hearing problem cause you <br> to go shopping less often than you would <br> like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-17. Does any problem or difficulty <br> with your hearing upset you at all? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-18. Does a hearing problem cause you <br> to want to be by yourself? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-19. Does a hearing problem cause you <br> to talk to family members less often than <br> you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |


| E-20. Do you feel that any difficulty <br> with your hearing limits or hampers your <br> personal or social life? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| :--- | :--- | :--- | :--- |
| S-21. Does a hearing problem cause you <br> difficulty when in a restaurant with <br> relatives or friends? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-22. Does a hearing problem cause you <br> to feel depressed? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| S-23. Does a hearing problem cause you <br> to listen to TV or radio less often than <br> you would like? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-24. Does a hearing problem cause you <br> to feel uncomfortable when talking to <br> friends? | $\square$ Yes | $\square$ Sometimes | $\square$ No |
| E-25. Does a hearing problem cause you <br> to feel left out when you are with a <br> group of people? | $\square$ Yes | $\square$ Sometimes | $\square$ No |

## UNSCHEDULED APPOINTMENT HEARING AID PROBLEM CHECKLIST

Subject \#: $\qquad$
Serial \#: $\qquad$

Status: $\qquad$
Ear: $\qquad$

DATE: $\qquad$
EXAMINER'S INITIALS: $\qquad$

Primary Complaint:

| or debris: |  |  |  |
| :--- | :--- | :--- | :--- |
| dome? |  | YES | NO |
| tubing? |  |  |  |
| microphone port(s)? |  |  |  |


| Battery: | YES | NO | ACTION TAKEN |
| :--- | :--- | :--- | :--- |
| No battery? |  |  |  |
| Battery inserted incorrectly? |  |  |  |
| Battery dead? |  |  |  |


| Hearing aid parts: | YES | NO | ACTION TAKEN |
| :--- | :--- | :--- | :--- |
| Tubing missing? |  |  |  |
| Dome missing? |  |  |  |
| Tubing incorrectly attached? |  |  |  |
| Dome incorrectly attached? |  |  |  |
| Tubing broken? |  |  |  |
| Dome broken? |  |  |  |
| HA casing broken? |  |  |  |

$\square$ Problem resolved: remind subject of their next appointment date and time and escort out.
$\square$ Problem not resolved: Tell subject, "I need to run some checks on the hearing aid, I will be right back," then consult audiologist.

## Additional Notes:


[^0]:    For IU Human Subjects Office Use ONLY

[^1]:    * Total Number of CORRECTLY identified words:

