

Hearing rehabilitation manual

Exercises for adult hearing implant recipients



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The exercises in this manual are intended to focus on specific ways we use information to communicate in the real world. You will:

- practice identifying sounds, common words and phrases
- learn to use the context of the conversation to your advantage
- strengthen your auditory memory

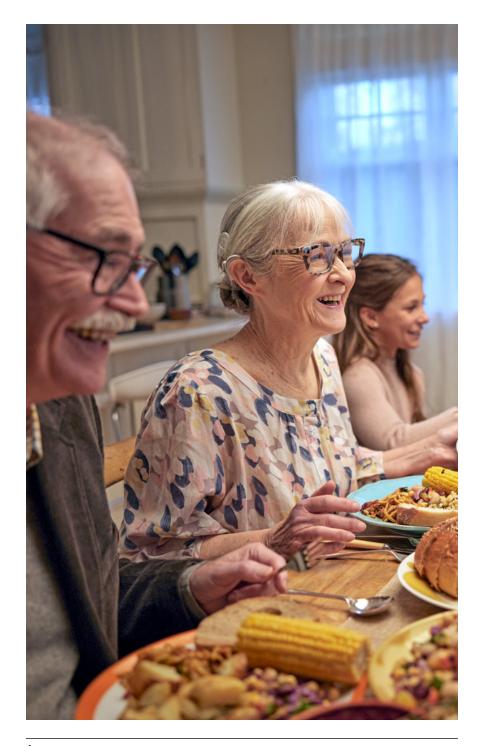
Most of these exercises are completed with a practice partner. Simple instructions are provided for each exercise, along with some spaces throughout the manual to take notes and add your own ideas.

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A guide for hearing rehabilitation

Every hearing journey is unique

Your personal hearing and medical history will influence how your journey unfolds. Using your sound processor full-time and actively practicing with listening exercises can make a difference.

How hearing rehabilitation works

Listening with a hearing implant enables you to hear sound. However, your hearing with your implant and sound processor is different than what your brain heard before you experienced hearing loss. The exercises in this manual are designed to help you recognize environmental and speech sounds now that they may sound a little different.

Hearing rehabilitation tips

- Practice when you are feeling fresh and relaxed.
- Check that your sound processor settings are correct.
- Find a comfortable, quiet room to practice. Depending on the exercise, you may be sitting side-by-side with your practice partner, or a few feet away from each other.
- If you have recently been implanted in one ear, focus your hearing rehabilitation on that ear by itself. Take the hearing aid off your other ear if you wear one. If needed, consider putting an earplug in the nonimplant ear. If you are bilaterally implanted, consider doing exercises on one ear at a time and also with both ears together.
- These exercises do not need to be done in any special order. If one
 exercise is too difficult, it's ok to move on! You can come back to that
 one another day.

A message for practice partners

Family and friends have an important impact on the hearing journey, and one way you can support your recipient is with practicing these hearing exercises. There may be moments of frustration along the way, but also moments of joy and triumph! Your support is essential to continued success, and we hope this manual makes it easy for you to participate in this very special way.

Here are some tips to you get started

- Use your normal conversational voice.
- If the exercise is difficult, consider these suggestions:
 - Speak more slowly
 - Offer a clue
 - Try with lipreading
- If the instructions are to avoid lipreading, sit next to each other side-by-side facing the same direction. You should sit on the same side as the ear that needs the rehabilitation exercise. Try not to cover your mouth as this will muffle your words.
- Helpful feedback includes:
 - "Listen again."
 - "Nearly right, listen to the end of the sentence again."
 - "It sounds like that word, but it's a different word."



Your practice partner can be your clinician, friend or family member.





Hearing rehabilitation notes

Use these pages to keep track of the hearing rehabilitation exercises as you complete them. You can include notes about specific parts that you found easy or challenging, and record your location, time of day, and how you felt. For example, an exercise that seems challenging late in the afternoon might be easier first thing in the morning. Keeping notes about your progress can help you identify patterns and make adjustments as you continue your hearing journey.

	Module/exercise	Page #
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Section A

Getting started

For some exercises in this section, you will be holding the instructions and reading from the page alongside your practice partner. For other exercises, you will need to hand the rehabilitation manual to your practice partner so you don't see the instructions in advance. Look out for this symbol 1 and hand the book to your practice partner for the exercise when you see it.



Environmental sounds checklist

With a hearing implant, you can develop a new awareness of the sounds around you and learn to identify these environmental sounds. Spend some time each day listening to the sounds around you.

Instructions

You and your practice partner can use this list as a guide to find sounds that you may not have recognized at first. On page 16, you can also make your own list of new sounds that you can hear or that you have asked people to help you identify.

Lower pitched (deeper) sounds				
☐ refrigerator humming	☐ thunder			
□ man's voice	☐ air conditioning			
☐ car engine from inside the car	□ wind			
□ fan	□ a zipper			

Higher pitched (squeakier) sounds				
□ birds	□ child's voice			
☐ car turn signal	☐ clothes rubbing together			
□ cicadas	☐ rubbing hands together			
☐ jangling keys	☐ microwave or washing machine beeps			
☐ frying food	□ doorbell			
Rhythmic sounds				
☐ phone ringing	□ crosswalk signal			
□ footsteps	☐ knocking at the door			
☐ tap dripping	□ clock ticking			
Continuous sounds				
□ clothes dryer	□ vacuum cleaner			
☐ rain on roof	☐ waves at the beach			
☐ leaves rustling in the trees				
Soft sounds				
☐ own breathing	☐ typing on a computer keyboard			
☐ chopping vegetables	☐ rustling of tissue paper			
☐ pet drinking from a bowl	☐ cat purring			
☐ shuffling a deck of cards	☐ scissors opening and closing			
☐ turning pages of a book or magazine	☐ the sound released when opening a soda can			

Distant sounds			
☐ traffic in distance	□ sirens		
☐ neighbor coming and going	□ children at a playground		
□ car coming down the road	☐ airplane flying overhead		
Louder sounds			
☐ silverware being placed in drawe	er □ running water into the sink		
☐ toilet flushing	□ own chewing		
□ clapping	☐ motorcycle passing by		
□ dog barking	□ plastic bags or packaging		
My own list of sounds			



Module 2

Identifying speech sounds (vowels and consonants)

Learn to hear individual speech sounds by reading and listening at the same time. This exercise uses pairs of one-syllable words that sound very similar so that you can focus on the differences. This can be very challenging, so be patient with yourself as you practice.

Instructions

- For each exercise, read along while your practice partner points to each word while speaking them out loud. Listen carefully to the vowel or consonant that is different in the pair of words.
- Next, your partner will say one of the words aloud without pointing.
- Point to the word that you heard.
- If this is too challenging, take turns saying each word out loud and listen for the different vowel and consonant sounds.

EXERCISE 1 Vowel identification



1	theme	thumb	6	carp	cup
2	sharp	ship	7	port	put
3	teach	touch	8	peep	pip
4	barn	bin	9	mast	must
5	leak	luck	10	wall	wool

EXERC	ISE 2 el identifi	cation			level 2
1	bath	booth	6	fast	feast
2	spark	speak	7	hard	who'd
3	tar	too	8	barn	bean
4	parch	peach	9	bars	booze
5	tart	toot	10	park	peak
EXERC	ISE 3 el identifi	cation			level 2
1	tea	too	6	kid	could
2	pit	put	7	bat	but
3	cap	cup	8	bid	bed
4	pit	pet	9	feed	food
5	beat	boot	10	pill	pull
EXERC Cons		entification			level 1
1	rip	rib	6	lack	lag
2	cap	cab	7	lock	log
3	mop	mob	8	cod	cot
4	pick	pig	9	card	cart

EXERCISE 5 Consonant identification						
1	pea	me	6	pen	pet	
2	рор	mop	7	seen	seat	
3	pie	my	8	ban	bat	
4	peel	meal	9	bean	beet	
5	pet	met	10	mean	meet	
EXERG		entification	1		level 2	
1	match	batch	6	hen	head	
2	man	ban	7	moon	mood	
3	morn	born	8	bun	bud	
4	mail	bail	9	pan	pad	
5	me	be	10	corn	cord	
EXERG		entification	1		level 2	
1	sum	numb	6	moose	moon	
2	sea	knee	7	horse	horn	
3	sap	nap	8	mass	man	
4	sit	knit	9	case	cane	
5	seed	need	10	dice	dine	

duck

dug

hard

heart

EXERC		entification	า		level 3
1	lip	nip	6	mean	meal
2	law	nor	7	fine	file
3	lap	nap	8	coin	coil
4	lit	knit	9	spin	spill
5	let	net	10	skin	skill
EXERC		entification	า		level 3
1	chew	shoe	6	cheer	shear
2	chin	shin	7	chose	shows
3	chip	ship	8	chop	shop
4	chewed	shooed	9	cheers	shears
5	chore	shore	10	chair	share
	CISE 10 Sonant ide	entification	า		level 4
1	boat	goat	6	lab	lad
2	bub	dub	7	bag	bad
3	big	dig	8	big	bib
4	dad	gad	9	bust	dust

wed

web

EXERCISE 11 Consonant identification						
1	peer	tier	6	hop	hot	
2	peak	teak	7	bat	back	
3	pour	tore	8	map	mat	
4	pair	care	9	cape	cake	
5	tool	cool	10	lip	lit	
	CISE 12 sonant ide	entificatio	n		level 4	
1	fought	short	6	fit	sit	
2	fine	sign	7	sam	sham	
3	few	shoe	8	frill	shrill	
4	lass	lash	9	buff	bus	
5	fell	shell	10	fail	shale	
EXERCISE 13 Consonant identification					level 4	
1	mail	nail	6	boom	boon	
2	mine	nine	7	more	gnaw	
3	sum	sun	8	game	gain	
4	gum	gun	9	lime	line	
5	meet	neat	10	beam	been	

bet

get



Using context to recognize words

When you know the topic of a conversation, you can use context to help identify words. Use context to repeat these words without looking at the word list.

Instructions for practice partners

- You will tell the recipient the topic (animals, for example) and they will repeat it.
- Next, you will read each of the words and ask the recipient to repeat each word without lipreading.
- If a word is too challenging for the recipient to recognize after 3 attempts, you can try with lipreading, or use the word in a sentence to help the recipient understand with more context.

EXERCISE 1 Topic: animals

1	tiger	6	bear
2	snake	7	elephant
3	kangaroo	8	spider
4	dog	9	cat
5	chimpanzee	10	hippopotamus

EXERCISE 2 Topic: months

1	September	6	April
2	March	7	August
3	July	8	June
4	February	9	December
5	October	10	May

Make your own

You can also make up your own sets of topics and words. Follow the format of the previous tables to fill out the table below. Here are some ideas:

colorsvehicles	foodsbicycle parts	 days of the week
Topic:		
1	6	
2	7	
3	8	
4	9	



Module 4 Using context to understand sentences

When you know the topic of a conversation, you can use context to help you understand sentences. Use context to repeat these questions and statements without looking at the list. Practice using strategies to ask for clarification.

Instructions for practice partners

- You will tell the recipient the topic (at a restaurant, for example) and they will repeat it.
- Next, you will read the question or statement and ask the recipient to repeat it without lipreading.
- Encourage the recipient to ask questions such as "Did you say...?" or "Can you say that in a different way?"
- Once the recipient has attempted to repeat the question, tell them which words they got correct.
- If the recipient has not been able to repeat the sentence after 3 attempts, you can provide an important word in the sentence with lipreading and then repeat the entire sentence.
- If the recipient is still having trouble repeating the sentence, you can repeat the entire question or statement with lipreading.

EXERCISE 1 Topic: at a restaurant²

- 1 How would you like your steak cooked?
- 2 You have a choice of soup or salad.
- 3 Good evening. May I take your order?
- 4 Would you like to eat at this restaurant again?
- 5 Would you like to use a credit card or pay cash?
- 6 Thank you. Come again.
- 7 Would you like a table for two?
- 8 Is there anything else I can get for you?
- 9 You have potato on your chin.
- 10 Would you like pie, cake or ice cream for dessert?

EXERCISE 2 Topic: at the grocery store

- 1 Are you finding everything you need?
- 2 The salad dressing is in aisle seven.
- 3 Do you have organic cauliflower?
- 4 How many bottles are in your cart?
- 5 I would like to use this coupon.
- 6 Would you like to buy stamps today?
- 7 Do you need help getting this to your car?

Make your own

You can also make up your own topics and sentences. Follow the format of the previous tables to fill out the table below. Here are some ideas:

• at the post office

your favorite hobby

your last vacation

going to the beach

Topic: _____

- 1
- 2
- 3
- 4
- 5
- 6



Module 5 Recognizing sentences

Practice identifying sentences when you know what the possible options are. This exercise is more difficult than the previous sentences as the topics are not known and there are many possible options.

Instructions

- While you are looking at the word table, your partner will read one of the sentences across the row.
- Identify the sentence, even if you only understand one or two words.
- If this exercise is too challenging, cover up half of the list.
- Make this exercise fun by inventing your own sentences!

Sentence options³

001110110					
Name	Verb	Number	Adjective	Noun	
Peter	owns	ten	old	jackets	
Bill	sends	two	red	boxes	
John	sees	seven	good	roses	
Gary	bought	three	new	birds	
Steven	won	six	green	windows	
Nicole	gets	twenty	lovely	cars	
Rachel	sold	eight	pretty	shirts	
Barbara	gives	thirteen	big	dogs	
Michelle	chose	twelve	yellow	gifts	
Cathy	made	eleven	funny	balls	

Make your own sentences

You can also make up your own sentences. Follow the format of the previous table to fill out the table below.

Name	Verb	Number	Adjective	Noun	



Module 6 Text following

When you listen as text is read aloud, you can learn to hear the rhythm and pattern of words and sentences. You can do this by listening to your practice partner reading a passage aloud, or by listening to an audiobook and following along with the physical book.

OPTION 1

Passages read aloud by practice partner

Instructions

- Find two copies of a book, newspaper or magazine; or use the practice passage on the next page.
- Your partner will read one copy aloud and you will listen while following the words.
- Occasionally, your partner will stop speaking and you will check that you are following along correctly.

Tips

- When you start this task, practice in a quiet room using materials that are easy to follow (for example, a children's book or easy materials where you know the topic).
- Your partner should start by speaking slowly and stopping in places that are predictable, such as at the end of sentences or phrases.
- Passages can be read several times for practice.
- As you gain more experience with this task, you can use more difficult materials with longer sentences and unfamiliar topics.
- Another way of challenging yourself is to add in background noise by opening a window, turning on a fan, or playing white noise or music.
 Increase the level of the noise as you begin to see success.
- You can also practice listening by reading aloud to yourself.

Practice passage⁴

Australia

The continent of Australia is about 7,000 miles southwest of California. It is both a continent and an island and is almost exactly the same size as the mainland United States. The Nullarbor is the second largest desert in the world and means "no trees" in Latin. Because of this huge desert, most of the population lives around the coastal borders. There are seven states, including the island of Tasmania.

One of the most interesting features of this country is the animals. The most well-known is the koala bear, of course. In fact, the koala is not really a bear, because it has a pouch in which it carries its young. The koala lives in a special kind of eucalyptus tree, because the koala will eat only the leaves from this tree.

Another animal is the wallaby. This is a miniature kangaroo. It has very big eyes and very long claws and is more friendly than a kangaroo. There are several kinds of kangaroos: gray ones, red ones and brown ones. They have very large hind feet and a long tapered tail that make it possible for them to leap great distances. They can move faster than fifty miles per hour. In the north of Australia, kangaroos can be found in the wild very easily. However, wild Australian animals are not usually found wandering the streets of any major city.

There are many other interesting things in this land called "Down Under."

OPTION 2

Audiobooks (recorded books)

Instructions

• Listen to an audiobook and at the same time follow along on the text in a physical book. Listen to the patterns in the speech and try to identify what the words are. If you find it difficult at first, you can repeat the passage several times to practice.

Tips

- Audiobooks can be borrowed at most public libraries; or purchased online or through mobile apps.
- It's a good idea to start with easier books and build up to harder books as you get more practice. Starting with children's books may be easier. Then as you get more practice, listen to books for adults, starting with topics that you are familiar with and are of interest to you perhaps a book you have read before and enjoyed.
- Some speakers are easier to hear than others, so it can be helpful to experiment with listening to different narrators.
- You can try streaming directly to your sound processor.
- You can make the task more challenging by listening to the audiobook alone without reading along.
- Another way of challenging yourself is to add in background noise by opening a window, turning on a fan, or playing white noise or music. Increase the level of the noise as you begin to see success.



Recognizing common phrases

Practice recognizing commonly heard phrases.

Instructions for practice partners

- Read each of the following commonly used phrases to the recipient, one at a time.
- Ask the recipient to repeat the phrase back to you.
- Encourage the recipient to ask questions such as "Did you say...?" or "Can you say that in a different way?"
- This exercise is meant to be completed without lipreading and without the recipient seeing the phrases.

JOH	ommon phrases				
1	What time is it?				
2	I'll see you later!				
3	How was your day?				
4	Would you like a cup of coffee?				
5	Wait just a minute.				
6	What's the weather like?				
7	Have a nice day.				
8	What are we having for dinner?				
9	How are you feeling today?				
10	Do you need a ride?				
11	Would you like some help?				
12	Please close the door.				
13	Are you warm enough?				
14	What would you like for breakfast?				
15	Happy Birthday!				
16	Let's go to the movies.				
17	Pass the salt and pepper please.				

Common phrases

Section B

Real world challenges

Congratulations on completing the first section! This next section will challenge you a little more. You will have the opportunity to practice listening to speech when the topics and options are not known, giving you the chance to practice understanding the message.

For some exercises in this section, you will be holding the instructions and reading from the page alongside your practice partner. For other exercises, you will need to hand the rehabilitation manual to your practice partner so you don't see the instructions in advance. Look out for this symbol 1 and hand the book to your practice partner for the exercise when you see it.



Module 8

Recognizing sentences (no topics)⁵

Practice recognizing speech when the topic and possible options are not known.

Instructions for practice partners

- Read each sentence and ask the recipient to repeat it.
- Confirm which words the recipient got correct, and repeat the sentence up to 2 more times.
- If the sentence is too challenging, you can sit facing the recipient so they can try lipreading, or repeat the sentence more slowly. After several attempts, skip the sentence and proceed to the next one.

EXERCISE 1



- 1 We should vote next Tuesday.
- 2 Press the pedal with your foot.
- 3 Pour the stew into the bowl.
- 4 She saw a cat in the house.
- 5 The sky was clear and bright.
- 6 Take the winding path to the lake.
- 7 Will you please answer the phone?
- 8 The fish swam in the tank.
- 9 The boy missed the boat.
- 10 The house was built of brick.

EXERCISE 2



- 1 Always close the barn door tight.
- 2 After the dance they went straight home.
- 3 She was waiting at my front door.
- 4 Her dress was trimmed with a gold sash.
- 5 He found a pink shell on the beach.
- 6 The grapes were pressed into wine.
- 7 A break in the dam almost caused a flood.
- 8 The red apple fell to the ground.
- 9 The corner store was robbed last night.
- 10 Cut the pie into eight equal portions.

EXER	CISE 3	level 2
1	The man went to the woods to gather sticks.	
2	Next Sunday is the twelfth of the month.	

- Plant a bush near the front steps.
- 4 She called his name many times.
- 5 She sewed the torn coat quite neatly.
- 6 The sun came up in the eastern sky.
- 7 The term ended in June that year.
- 8 Use a pencil to write the first draft.
- 9 Come quickly when you hear the bell.
- 10 Wood is best for making toys and blocks.

EXERCISE 4 level 2

- 1 A small creek cuts across the field.
- Pencils with black lead are good for sketching.
- 3 Movie tickets cost five dollars on Mondays.
- 4 The round mat covered the mark on the floor.
- 5 A frog and a toad are hard to tell apart.
- 6 The alarm clock woke him from a deep sleep.
- 7 The crew lost their lives in the raging storm.
- 8 The bomb raid left most of the town in ruins.
- 9 The curtain rose and the show began.
- 10 Drive the screw straight into the wood.

EXERCISE 5

1e/

- 1 Pick a card and place it under the pack.
- 2 The plant grew large and green in the window.
- 3 Raise the sail and steer the ship northward.
- 4 She danced like a swan, tall and graceful.
- 5 The salt breeze came across the sea.
- 6 There was the sound of dry leaves outside.
- 7 Turn on the lantern for light.
- 8 Twist the valve and release hot steam.
- 9 Watch the log float in the wide river.
- 10 We now have a new warehouse for shipping.

EXERCISE 6

level

- 1 Canned pears lack full flavor.
- 2 A dash of pepper spoils beef stew.
- The gray mare walked before the colt.
- 4 Boards will warp unless kept dry.
- 5 The rent was paid every third week.
- 6 The beetle droned in the hot June sun.
- 7 Bail the boat to stop it from sinking.
- 8 The copper bowl shone in the sun's rays.
- 9 The black dog crawled under the fence.
- 10 A rod is used to catch pink salmon.



Module 9

(no topics)⁶

For practice partner use only Recipient: please do not read

EXERCISE 2

- jam
- 6 rough

2 leg

7 talk

3 caught

8 yes

4 can

9 zoom

5 bath

10 pave

Practice recognizing speech when the topic and possible options are not known.

Instructions for practice partners

Recognizing words

- Read each word and ask the recipient to repeat it.
- If the word is challenging, you can give the recipient hints such as "nearly; listen to the last letter again," or "almost right, but this word does not begin with P."
- After 3 tries, write down the word you're speaking and the word the recipient has guessed, and then say both words out loud several times.

EXERCISE 3

1 mesh

6 path

2 him

7 weave

3 term

8 dawn

4 thought

9 hook

5 girl

10 sheep

EXERCISE 1

1 dip

6 shed

2 can

7 chop

3 boot

8 verse

4 cheese

9 notch

5 jug

10 fib

EXERCISE 4

1 fuss

6 them

2 reef

7 latch

3 save

8 nil

4 daze

9 sheep

5 wash

10 sage



Module 10 Interactive Stories

Practice understanding the message rather than just repeating what you hear.

Instructions for practice partners

- Read the short paragraph out loud while the recipient listens without lipreading.
- Ask each of the 6 questions about the paragraph, one at a time, waiting for the recipient to answer each question.
- If this is challenging, you can provide hints about the questions, or you can read the short paragraph again while the recipient listens with lipreading.

EXERCISE 1 Story: Breakfast²



Breakfast is probably the most important meal of the day. It gives us energy to go through the morning. Most people eat breakfast at about seven o'clock in the morning. I like cereal, toast and juice for breakfast. On Sundays, it's nice to go out to a restaurant for breakfast.

- 1 What was I talking about?
- 2 What time do most people eat breakfast?
- What time do you eat breakfast?
- 4 Do you like eggs for breakfast?
- 5 What do you like best for breakfast?
- 6 Do you ever go to a restaurant for breakfast?

EXERCISE 2 Story: The disappointed cat⁷

level 2

One day, a little bird sat in a tree and looked around. He wanted something to eat and saw a piece of bread on the ground. He flew down and began to eat it. An old black cat saw the bird and crept up behind him. She almost caught him, but the little bird heard her and flew back into the tree. The cat was disappointed. She lay down on the steps and went to sleep. Then the little bird flew down again and ate the bread.

- 1 How big was the bird?
- 2 What did the bird see on the ground?
- 3 Did the cat catch the bird?
- 4 What color was the cat?
- 5 Where did the cat fall asleep?
- 6 Did the bird get to eat the bread?

EXERCISE 3 Story: Garlic²

level 3

The simple bulb of garlic as we know it is certainly nothing special. However, garlic has a long and fascinating past. The Babylonians and ancient Greeks called it the "stinking rose" and believed it had peculiar powers. People rubbed it on their bodies, buried it with their dead, and wore it round their necks.

The Egyptians went so far as to pray to garlic. They maintained that it possessed the secret of physical strength. When garlic supplies ran short for the workers building the Great Pyramid, they reportedly went on strike. Big servings of garlic were also fed to soldiers for strength in battle and to athletes for better performance.

It was also believed that garlic had many therapeutic values. Remedies have been recorded for snakebite, measles, colds and cholera, to name but a few. A more bizarre practice was to string it around the neck to repel vampires.

While garlic is certainly not a cure for all sickness, it is a powerful antiseptic. It has also been used with good results as a pesticide. At the present time, the real value of garlic is in cooking. For some time, though, it was frowned upon as something smelly that only people from the Mediterranean ate. This view is changing, and no chef, who takes pride in cooking, would be without it.

Since most people worry about bad breath, it should be remembered that this only occurs with raw garlic. It is perfectly safe to eat when cooked. A final reassurance comes from the Japanese, who focused on the development of an odorless garlic. This breakthrough won over many who refrained from eating garlic previously because of fear of bad breath.

- 1 What was garlic called in the time of the Babylonians?
- 2 Name two ways that garlic was used in the past.
- 3 Why were soldiers and athletes fed so much garlic?
- 4 What were the garlic remedies supposed to cure?
- 5 What do we use garlic for in modern times?
- 6 What is the major shortcoming of garlic?
- 7 What was the process that made garlic better to eat?



Module 11

Information transfer— complete the missing information⁸

Practice understanding the message rather than just repeating what you hear.

Instructions for practice partners

- This exercise has two parts. Your copy is to the right, and the recipient's copy is on page 68.
- You both have the same table, but you are missing different details.
- Ask each other questions to fill in the blanks. For example, "What street is the house on?" or "How much is rent for the apartment?"

Partner copy		
Detail	Apartment	House
Street	King Street	
Size	big moderately sized small	big moderately sized ✓ small
Condition	modern ✓ somewhat modern not very modern	modern somewhat modern not very modern
Number of rooms	three	downstairs – upstairs –
List of rooms	a living room a kitchen a bedroom	
Central heating	Yes	
Near the shops		No
Distance from town center	1 mile	
Rent		\$1,600 a month
Any other information	You share the bathroom on the first floor	



Module 12

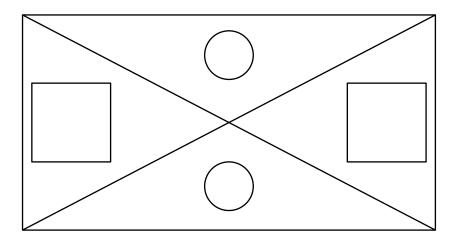
Information transfer—describe, perceive, draw

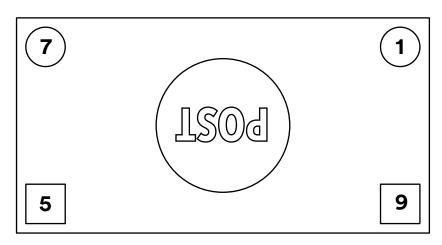
Practice understanding the message and asking for clarification rather than just repeating what you hear.

Instructions for practice partners

- The recipient will use the empty boxes in the appendix on page 70.
- There are two designs to the right. Without showing the recipient your designs, tell them how to draw a copy of the first design in one of their empty boxes. Describe the lines, shapes or symbols to draw and where to draw them. They will listen carefully and then draw in their box.
- Once the first box is finished, cover up your second design and then show the recipient your first design. Compare the original design to their drawing. Discuss any differences.
- Compare the first box before moving on to the second box.
- Repeat the same process for the second design.
- The following presentation tips may be useful for practice partner:
 - Use a number of short sentences initially, building up to longer, more detailed instructions.
 - Encourage the recipient to repeat or paraphrase each instruction to ensure it has been correctly perceived.
 - Do not automatically repeat the instruction if the recipient hesitates. Wait for them to question details so they begin to take responsibility for repairing the communication breakdown.

Partner pattern







Module 13 Role play

Practice understanding the message rather than just repeating what you hear.

Instructions for practice partners

- The recipient will use the instruction in the appendix on page 72.
- In this exercise, you will pretend to be in a specific place with a task to achieve.
- To begin, you will give basic information about the context and purpose
 with an introductory sentence, with lipreading. For example, you will
 say to the recipient, "We're going to pretend you're purchasing a train
 ticket at the ticket office, and I'm going to ask you some questions
 about your train journey."
- Next, you will ask each of the questions related to the situation, without lipreading.
- The recipient can give any answer that makes sense in the context of the situation. There is no correct answer. However, the answer should make sense in the given context. For example, if your question asks "Where you would like to go?" and the recipient responds with a time, ask the recipient to listen again and repeat the question with more emphasis on the word "where."

EXERCISE 1

Situation: Railway ticket office

- 1 Where would you like to go?
- 2 When would you like to go?
- What time of the day would you like to travel?
- 4 How many people will be traveling with you?
- 5 Would you like a one-way or a roundtrip ticket?
- 6 Will you be returning on the same day?
- 7 How would you like to pay for the ticket?

EXERCISE 2

Situation: Your audiologist's reception desk

- 1 Was your sound processor fitted at this clinic?
- 2 What model is your sound processor?
- Would you like the cable mailed to you?
- 4 How long have you had this sound processor?
- 5 What length of cable would you like, six inch or eight inch?
- 6 What color would you prefer: beige, brown, gray or black?
- 7 Do you need any other spare parts?



Module 14

Scripted conversation

Practice using prediction and topic cues to anticipate what your speaking partner is saying.

Instructions for the recipient

- For this exercise, you will be holding the rehabilitation manual and will be reading from the page.
- Ask your partner each of the questions to the right. Your partner will answer the question, and you will repeat back what your partner says before moving on to the next question.
- Work together to make sure that you have understood each answer.

Instructions for practice partners

- Encourage the recipient to guess. If the recipient cannot correctly repeat the information, provide assistance as follows:
 - Repeat the whole answer.
 - Repeat the answer emphasizing the incorrect part.
 - Repeat only the incorrect part.
 - Confirm the parts correctly repeated.
 - Adjust the predictability and complexity of your replies to suit the skill level of the recipient so the exercise remains challenging but manageable.

EXERCISE 1

Topic: Organizing a picnic

- 1 Let's go on a picnic. Where should we go?
- 2 Who should we invite along?
- Which day will we go?
- 4 Whose car should we take?
- 5 How long do you think it will take to get there?
- 6 What food should we take?
- 7 What other activities should we do at the picnic site?
- 8 What should we do if it rains?
- 9 How long should we stay there?
- Do you want to take anything else with you?



Module 15 Unscripted conversation[®]

Practice using prediction and topic cues to anticipate what your practice partner is saying.

Instructions for the recipient

- For this exercise, you will be holding the rehabilitation manual and will be reading from the page.
- Your partner will choose a location to discuss from the examples to the right.
- Ask your partner each of the 31 questions to the right and on the next page. Your partner will answer the question, and you will repeat back what your partner says before moving on to the next question.
- Work together to make sure that you have understood each answer.

Instructions for practice partners

- Choose a location from the examples to the right and answer each of the recipient's questions about your experience at the location. They will repeat back to you what you've said after each question. If the recipient cannot correctly repeat the information, provide assistance as follows:
 - Repeat the whole answer.
 - Repeat the answer emphasizing the incorrect part.
 - Repeat only the incorrect part.
 - Confirm the parts correctly repeated.
 - Adjust the predictability and complexity of your replies to suit the skill level of the recipient so the exercise remains challenging but manageable.

Location examples

- museum
- picnic

airport

- doctor's office
- post office
- beach
- swimming pool

 mountains restaurant

zoo

- concert
 - shopping mall
- supermarket

cooking class

campground

Questions

- Where did you go?
- Why did you go there?
- When did you go?
- How many people went with you?
- Who were they? (give names)
- What did you take with you?
- Where is (the place that you went)?
- How did you get there?
- What did you see on the way?
- What time did you get there?
- What did you do first?

(continued on the next page)

12 What did you see?

13 How many? What color?

14 What happened at (the place where you went)?

15 What else did you do?

16 What were the other people doing at (the place where you went)?

17 What was the most interesting thing that you saw?

18 What was the most interesting thing that you did?

19 What did you buy?

20 What kind? What flavor? What color?

How much did it cost?

- Did anything unusual happen? What?

 How long did you stay?

 What did you do just before you came home?

 When did you leave?

 How did you get home?

 What happened on the way home?

 What time did you get home?

 How did you feel then?

 When are you going back?
 - Do you think that I should go sometime? Why?

Section C

Hearing in noise

Congratulations on completing the second section! This next section will challenge you a little more. You will have the opportunity to practice listening to speech in noise. Keep in mind that hearing in background noise can be challenging for hearing implant recipients to learn, and be patient with yourself as you practice these exercises.



Noise challenge 1

Practicing in

background noise

Noise challenge 2

Practicing on the phone

Many of the everyday environments in which we communicate are noisy. The noise may be steady such as an air conditioner or fan, or may be loud and variable such as traffic noise, and often it is a background of other people talking or of music. As you know, it is much more difficult to communicate in a noisy background.

You can start with low levels of noise and increase the noise level as you progress. You can practice listening in background noise with all the exercises in this manual. Below are the instructions for how to practice in background noise. You can use your technology to help you hear in noise, and it is especially important to practice your strategies for asking for clarification.

- All of the exercises in the manual can be practiced in noisy backgrounds.
- You can create background noise by opening a window, turning on a fan, or playing white noise, music or a podcast.
- Increase the level of the noise as you progress:
 - Start with the noise at a level where you are just aware of it until you can get over 90% correct on your chosen exercise.
 - Next, increase the noise level so that you have to really concentrate on your partner but your partner is still louder than the noise. Practice until you can get over 80% correct.
 - Increase the noise so that it is the same level as your speaker. At this level, sentence-type exercises work best. Remember to listen for meaning rather than every word.

Most recipients who were able to use the phone with their hearing aid learn to use the phone again with their implant. Success depends on how much you understand without lipreading, how you manage the conversation when you are unsure of what is said, and how well you manage the speaker at the other end of the line.

Voices will sound different on the telephone through the implant, as not all the tones available in your speech processor are transmitted down the phone line. It is also less clear and natural than talking with someone in person. You may not always identify the caller. If you begin by initiating the calls yourself, you can remove one source of "telephone-stress."

Getting started

Before trying any exercises over the phone, your audiologist will show you the different ways to use your technology: for example, you can use the speaker feature on the phone, or hold the receiver against the microphone of your processor, stream wirelessly from your smartphone, or use the telecoil inside your processor.

Using your chosen method, start with an exercise you can already do easily with your speaking partner without lipreading. Try to repeat back what is said. Remember to listen for the key words and aim to get the gist.

Exercises that work well over the phone

- Sentences people say every day like those in Module 7.
- Words with a common theme like your family names, months of the year, similar to Module 3.
- Sentences on a specific topic such as booking a restaurant or arranging a trip to the movies or a picnic, similar to Module 4.
- Following and repeating a passage of text over the phone, such as Module 6. Material that works well includes recipes or children's stories. You could email a piece of familiar text to your partner and ask them to read it to you over the phone, so that you can become accustomed to their voice.
- Ask your partner to say 10 things about themselves and repeat back each item; for example, I have brown hair, I am 6 ft. 2 inches tall, I work on a farm, I ride a motorcycle, my favorite hobby is football.
- Try information transfer exercises like that in Module 11. Ask your partner to look out of the window and describe the house across the road, while you repeat back.

What to do when you are unsure what your partner says

- Always try to repeat back as much as you can to check understanding using "Did you say...?"
- If you still can't get a word or phrase after two repeats, ask your partner to use a different word or say it a different way—this is the fastest way to get back on track.
- Ask your partner to spell the word—it's easier if you have pen and paper near the phone.
- It's important to be very specific when asking your partner to help you. Saying "I can't understand you", or "I can't get that" or "sorry?" is likely to result in your partner talking more loudly, which may sound distorted. Ask your partner to use a normal conversation level, to speak more slowly and to make it clear when they change the subject, for example, "Can we talk about the arrangements for dinner next week?"

Tips

- Practice, practice—most recipients who are confident phone users speak on the phone every day.
- Keep the first phone calls short. A few successes will help build your confidence.
- Start with a familiar partner—someone whose voice you know you understand quite well. It helps if the person has observed your audiologist work with you on the phone.
- When you first start, it helps if your partner is in a quiet place.
 If you can hear too much background noise, ask them to call you back from a quiet location.
- Streaming directly from your compatible smart phone will allow a very clear signal with no background noise.
- If you are listening with the phone held up to your processor, make sure your phone is in a good position.
- If you are using the telecoil, you may reduce interference by moving away from electronic items such as computers and fluorescent lights.
- Many people like to have their phone on speaker mode when they are in a private setting.

Recipient exercise copies



Recipient copy of Module 11: Information transfer complete the missing information⁸

Instructions for the recipient

- This exercise has two parts. Your partner's copy is on page 48 and your copy is to the right.
- You both have the same table, but you are missing different details.
- Ask each other questions to fill in the blanks.
- For example, "What street is the house on?" or "How much is rent for the apartment?"
- Practice asking for clarification.

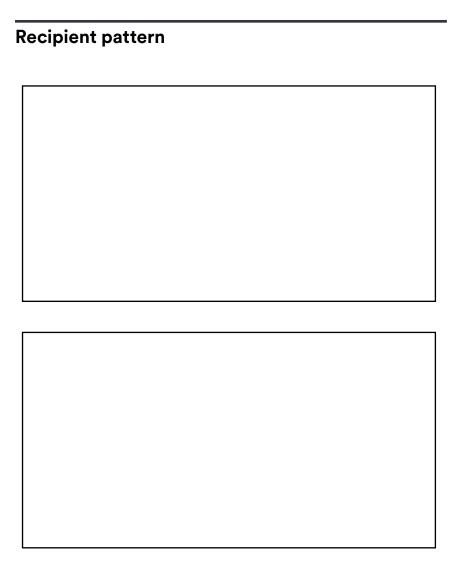
Recipient copy		
Detail	Apartment	House
Street		Park Road
Size	big ✓ moderately sized small	big moderately sized small
Condition	modern somewhat modern not very modern	modern somewhat modern not very modern ✓
Number of rooms		downstairs – two upstairs – three
List of rooms		living room kitchen two bedrooms one bathroom
Central heating		No
Near the shops	Yes	
Distance from town center		2 miles
Rent	\$250 a week	
Any other information		There is a large garden and a garage.



Recipient copy of Module 12: Information transfer describe, perceive, draw¹

Instructions for the recipient

- There are empty boxes to the right. Without showing you their designs, your partner is going to describe how to draw a copy of their design.
 They will tell you the lines, shapes or symbols to draw and where to draw them. Listen carefully and then draw the items in the box.
- If you are not sure, use one of the following strategies for clarification, but do not look at your partner's drawing.
 - Ask your partner to repeat the whole instruction.
 - Repeat back what you think the instruction was, for example,
 "Did you say the top left hand corner?" Your partner will provide feedback as to which parts you heard correctly.
 - Ask your partner to clarify any parts you are not sure of, for example, "I heard you say 'circle', but I am not sure where to draw."
- Once you finish drawing the first design, show it to your partner, compare it to the original design and discuss any differences.
- Compare the first box before moving on to the second box.
- Repeat the same process for the second design.





Recipient copy of Module 13: Role play⁸

Instructions for the recipient

- In this exercise, you and your partner will pretend to be in a specific place with a task to achieve.
- Your partner will give you some basic information about the context and purpose of your conversation, with lipreading.
- Next, your partner will ask you questions related to the situation, without lipreading.
- Try to give appropriate answers. If you don't understand the question, use strategies to ask for clarification, such as "Did you say...?" or "Are you asking...?"

EXERCISE 1

Situation: Railway ticket office

Task:

To obtain a train ticket for your journey home/to visit family

Introductory sentence:

"I would like to buy a train ticket please."

EXERCISE 2

Situation: Your audiologist's reception desk

Task:

To obtain a replacement cable for a sound processor

Introductory sentence:

"I need a new cable for my sound processor, please."

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References

- Adapted from Plant, G. (1984). Commtram: A communication training program for profoundly deaf adults. Sydney: National Acoustics Laboratories.
- Pedley, K. Synthetic training. In: Pedley, K., Lind, C., & Hunt, P. (2005) Adult Aural Rehabilitation:
 A guide for cochlear implant professionals. Sydney: Cochlear Ltd. Based on concept of Plant,
 G. (1984). Commtram: A communication training program for profoundly deaf adults. Sydney:
 National Acoustics Laboratories.
- Based on concept of Hagerman, B. (1982). "Sentences for speech intelligibility testing in noise," Scandinavian Audiology, 11: 79-87. Words adapted from Angel Sound.
- 4. Hunt, P. Analytic training.
- 5. Adapted from IEEE sentences. Institute of Electrical and Electronic Engineers (1969).
- 6. Adapted from Angel Sound.
- 7. NSW Department of School Studies (1990).
- 8. Watcyn-Jones, P. & Howard-Williams, D. (2001). Grammar games and activities, Book 1.
- Adapted from Erber, N. (1996). Communication therapy for adults with sensory hearing loss (2nd ed). Clifton Hill: Clavis

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Views expressed are those of the individual. Consult your hearing health provider to determine if you are a candidate for Cochlear technology. Outcomes and results may vary.

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