

**Cochlear Implant Center** Westchester **Medical Center** 

Westchester Medical Center Health Network

# ear Connections

News from the Cochlear Implant Center

Fall 2020

## **Cochlear Implant Center**

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The Cochlear Implant Center at Westchester Medical Center, flagship of the Westchester Medical Center Health Network (WMCHealth), provides coordinated audiology and speechtherapy services for cochlear implant patients and those considering this life-changing technology. It is the only center between New York City and Albany providing comprehensive services for children and adult patients.

The Cochlear Implant Center is staffed by a team of highly trained audiologists and speech pathologists with expertise in evaluation and rehabilitation services for individuals who are cochlear implant candidates and those who receive a cochlear implant. Cochlear implantation is a highly successful technology that allows deaf children to hear and speak, and enables deafened adults to enhance their lives. The Cochlear Implant Center provides comprehensive services such as individualized programming of the implant and speech-therapy services.



**Medical Center** Westchester Medical Center Health Network Advancing Care. Here.

WestchesterMedicalCenter.org

Westchester Medical Center Health Network includes Westchester Medical Center | Maria Fareri Children's Hospital Behavioral Health Center | MidHudson Regional Hospital Good Samaritan Hospital | Bon Secours Community Hospital St. Anthony Community Hospital | HealthAlliance Hospital: Broadway Campus HealthAlliance Hospital: Mary's Avenue Campus | Margaretville Hospital



The Cochlear Implant Center at Westchester Medical Center/Maria Fareri Children's Hospital is continuing ongoing care for our cochlear implant recipients and evaluating new implant candidates. We know that this is a challenging time for everyone, with mask usage and social distancing making it particularly difficult for individuals with hearing loss to communicate. In our Fall Newsletter, we wanted to share with you some tips that are useful at all times, but particularly helpful as we continue to navigate with hearing in a COVID-19 environment.

# **Remote Programming sessions available!**

Remote programming allows for adjustment of your cochlear implant from the comfort of home! A laptop is sent from our center directly to your home. Using the WMC laptop, patients and their audiologist can connect over video call to troubleshoot equipment and make adjustments to cochlear implant programs.

# WhO can participate in remote programming?

Anyone with a Cochlear Americas cochlear implant!

# When can a remote session be scheduled?

Remote sessions are available Monday - Friday from 9 a.m. - 4 p.m.

# What does the patient need?

Patients must have access to high-speed internet.

# **HOW** can a remote session be scheduled?

Call or Email the Westchester Medical Center Cochlear Implant Center to schedule today! 914.493.4634 cochlearimplantcenter@wmchealth.org



# Welcome Back Dr. Kristi D'Auria!

Following the birth of her daughter, Dr. D'Auria will be returning to the Cochlear Implant Center beginning the first week of November. We are all excited to have her back and know that many of her patients have been waiting for her return.



# Welcome Nikeisha Nicholson,

our new patient service representative! Nikeisha will be greeting our patients and managing scheduling and insurance authorization. She comes to us with a wealth of experience and we are happy to have her join our team.



# Is it Time For Your Mapping Appointment?

Call or Email the Westhchester Medical Center Cochlear Implant Center to schedule: 914.493.4634

cochlearimplantcenter@wmchealth.org



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# Remote Microphones are for Everyone!

Those of us who are deaf and hard of hearing are accustomed to adapting to less-than-ideal listening environments. Now that people are almost always wearing masks and keeping a physical distance of at least 6 feet, we have new challenges to overcome. This guide will help you identify, understand, and remedy communication difficulties due to our new reality.

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**Masks** make it difficult to read lips and facial expressions. Masks muffle the speaker's voice by creating a physical barrier to the traveling sound waves and restricting airflow necessary for speech production.

**Face Shields** also muffle the speaker's voice by creating a physical barrier between the speaker and listener.

**Physical Distancing** degrades speech as sound waves naturally fade with distance. Speech is also absorbed or reflected by objects in the environment, adding another layer of sound distortion and background noise. Cochlear implants and hearing aids work best when the speaker is within 5 feet of the listener!

Ambient noise and poor room acoustics compound the above problems.



# A Remote Microphone

can reduce the negative effects of masks, face shields, and physical distancing by streaming the speaker's voice from the **Remote Microphone** directly to your cochlear implants/hearing aids! **A Remote Microphone** can be used in classrooms, at work, supermarkets, parties, restaurants, religious gatherings, meetings, social and/or family gatherings, and more!

#### Candidates for **Remote Microphone** technology include:

All types of hearing loss regardless of severity
Patients with poor speech understanding in noise
Cochlear implant, BAHA, and hearing aid users
Unilateral and asymmetric hearing loss

Contact your audiologist to determine if a **Remote Microphone** or other hearing aid/cochlear implant-compatible technology can help with your communication difficulties while adhering to public safety measures. We are here to support you!

# Cochlear Connections



# **Speech Understanding with Different Types of Face Coverings**

By now we've all heard that face masks, while they may protect us against COVID-19, also impact speech understanding. The question is, how much do they actually degrade speech? Is there one type of face covering that is better than others? Do people with hearing loss struggle more than someone with normal hearing? We decided to do some informal testing to see if we could answer these questions.

For our testing, we used sentences presented by a live voice at an average conversation level. The speaker monitored her voice to maintain a steady volume throughout. Testing was performed with the various face coverings with and without visual cues. Our "test subjects" were one audiologist who uses bilateral cochlear implants, and one audiologist with normal hearing. These are the results:

	Auditory Only		Auditory + Visual	
	Quiet	+5 Noise	Quiet	+5 Noise
No Mask	80%	Х	Х	Х
Procedure Mask	75%	Х	Х	Х
N95 Mask	84%	Х	Х	Х
Cloth Mask	88%	71%	Х	Х
Clear Mask	80%	Х	Х	Х
Face Shield	63%	35%	93%	80%

#### **Cochlear Implant User**

#### **Normal Hearing Adult**

	Auditory Only		Auditory + Visual	
	Quiet	+5 Noise	Quiet	+5 Noise
No Mask	100%	100%	Х	Х
Procedure Mask	99%	Х	Х	Х
N95 Mask	100%	Х	Х	Х
Cloth Mask	99%	97%	Х	Х
Clear Mask	98%	Х	Х	Х
Face Shield	99%	40%	Х	89%

#### Here are some takeaways:

- The normal hearing listener did pretty well with all types of face coverings in quiet and in noise.
- The cochlear implant user also did fairly well with most face coverings, except for the face shield.
- The face shield seemed to be the worst face covering, even with the normal hearing user, though it only impacted her understanding when noise was added.
- Lip-reading and visual cues made a big difference – even without formal training!
- With the face shield, both listeners reported that the sound was significantly softer. The normal hearing listener actually monitored the sound levels with her Apple Watch and confirmed that this was happening!
- The speaker had the hardest time keeping the volume at the "correct" level with the face shield.
- Adding noise makes listening really hard! Even though the normal hearing listener did well, she reported that she really had to concentrate and struggled with the task.
- When thinking about the best mask to use in school or work, know that one size does not fit all. Some students are auditory learners and will do better with a cloth or procedure mask. Some students need visual cues and will work best with the clear mask or face shield.
- It is critical to use a remote microphone system, such as the Phonak Roger system, or the implant manufacturer's streaming microphone, especially when using a face shield.
- As always, reduce the amount of background as much as possible when listening!



# Cochlear**Connections**

# Telephone Use

To maintain social distancing, we have all been spending more time communicating on the telephone. With practice, technology can make it easier to use a telephone with a cochlear implant or a hearing aid. **Telephone use can be difficult for individuals with hearing loss but practice and technology can help!** 

# Develop strategies for explaining to others that you have difficulty hearing

#### Develop repair strategies when you mishear

#### Practice listening with a family member

- Start with simple common words or phrases and build up
- Explore the internet and the manufacturers' websites for listening exercises
- Daily practice is important

Schedule an appointment with our speech/language pathologist, Michelle Albera at 914.493.4634, to learn how you can improve your skills

## Use your technology:



#### Telecoil (home phone only):

A telecoil is a small copper wire inside some cochlear implants and hearing aids. It converts electroacoustic signals from the telephone to sound that is then picked up by the microphone of your listening device. The telecoil provides a direct signal that is more robust than just listening through the device's microphone.

Your telecoil may activate automatically or you may need to press a button to activate it. Check with your audiologist

- You must hold the telephone over the microphone of your speech processor or hearing aid, NOT on your ear as you would normally. It may help to change the angle of the telephone. Experiment.
- The telecoil can be used in a public venue that displays the telecoil sign (a blue ear with a T over it).



#### Bluetooth (home or cell phone):

Bluetooth streaming provides a **clear direct signal** from your telephone to your cochlear implant or hearing aid.

Some cochlear implants and hearing aids can directly receive Bluetooth signals from some Bluetooth-enabled phones. Other devices require you to use an intermediary device, such as Cochlear Americas' Phone Clip, Advanced Bionics' Com Pilot or Direct Reciever, Med El's Audio Link, or Phonak's Roger transmitters (compatible with most cochlear implants and hearing aids)

If your home phone is not Bluetooth-enabled, you can buy a converter.



## Closed Captioning (home or cell phone):

Closed caption-enabled phones provide a visual as well as auditory signal. The words appear on a screen on your phone.

- Closed-captioned home phones are available for free by contacting the manufacturers: Clear Captions, Caption Call or Captel.
- Closed captioning for cell phones is available when using APPs from the above manufacturers or the "Inno Caption" APP.

Please do not hesitate to contact us if you have any questions or need additional help at 914.493.4634



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