

At University of Washington Speech & Hearing Clinic we love our patients!

We are happy to provide you with the latest hearing health care news, clinic updates and special offers. Thank you for being our patient – we'll see you soon!

Hello Spring

STUDENT CORNER



Mapping a Way Toward Safer Use of Hearing Protection

By David J. Audet Jr., Au.D. Graduate Student

My capstone project focuses on the idea that our brains can adapt to and learn new auditory spatial “maps” when presented with new information. The current theory in localization is that our brains have learned to tell where sounds are coming from because of a specific set of auditory cues created by our own ears, and it has created a “map.” If those cues are changed in a consistent way, our brains can create a new “map” and relearn how to tell where sounds are coming from.

I am interested in manipulating the cues imposed on the sound by the outer ear with earplugs and seeing how readily our brains can adapt to the change. In our study, participants will come into the lab and perform a localization task. Then we will insert a set of earplugs, hindering their ability to localize sounds. Over a 10-week period, participants will continue to come in for weekly training sessions of listening to sounds with the earplugs in their ears, hopefully allowing their brains to create a new “map,” which would improve their localization abilities.

Earplugs, although very important for protecting the ears from loud sounds, can have secondary drawbacks that can impair a person’s ability to communicate in loud environments. We specifically chose a 10-week protocol to emulate the amount of time soldiers spend in basic training. If a training protocol can be put in place during this early phase of a soldier’s military career, then perhaps we can improve earplug retention and reduce risk of hearing loss caused by military service.

David Audet is a third year Au.D. student in Andrew Brown’s research lab in the Department of Speech & Hearing Sciences at the University of Washington. David will complete the final year at the National Center for Rehabilitative Auditory Research (NCRAR) in Portland, OR.

DOES TRUST IN YOUR HEARING HEALTH CARE PROVIDER MATTER?

There are many reasons consumers don't seek help or use technology to help with their hearing problems. Two that have garnered a lot of recent attention are cost and access to hearing health care (HHC). For example, in the U.S., people spend an average of \$2,710 out-of-pocket when buying aids (Consumer Reports, 2017) because neither the cost of hearing aids nor the audiological assessment is covered by health insurance. Also, locating a licensed audiologist can be difficult because of low audiologist-to-population ratios nationwide.

To address the affordability problem, the U.S. Food and Drug Administration (FDA) proposed regulatory changes intended to improve consumer access to affordable hearing aids by no longer requiring that adults receive a medical evaluation or sign a waiver prior to purchasing most hearing aids. The FDA also committed to creating a new category of over-the-counter (OTC) hearing aids so that new, lower-cost products could be made available to the millions of consumers who have hearing loss and who could benefit from them.

For these reasons, an increasing number of audiological services are being delivered online. Rather than limiting diagnostic and dispensing services to brick and mortar clinical settings, we are seeing an increase in online eHealth and mobile health services, as well as direct-to-consumer advertising in audiology.

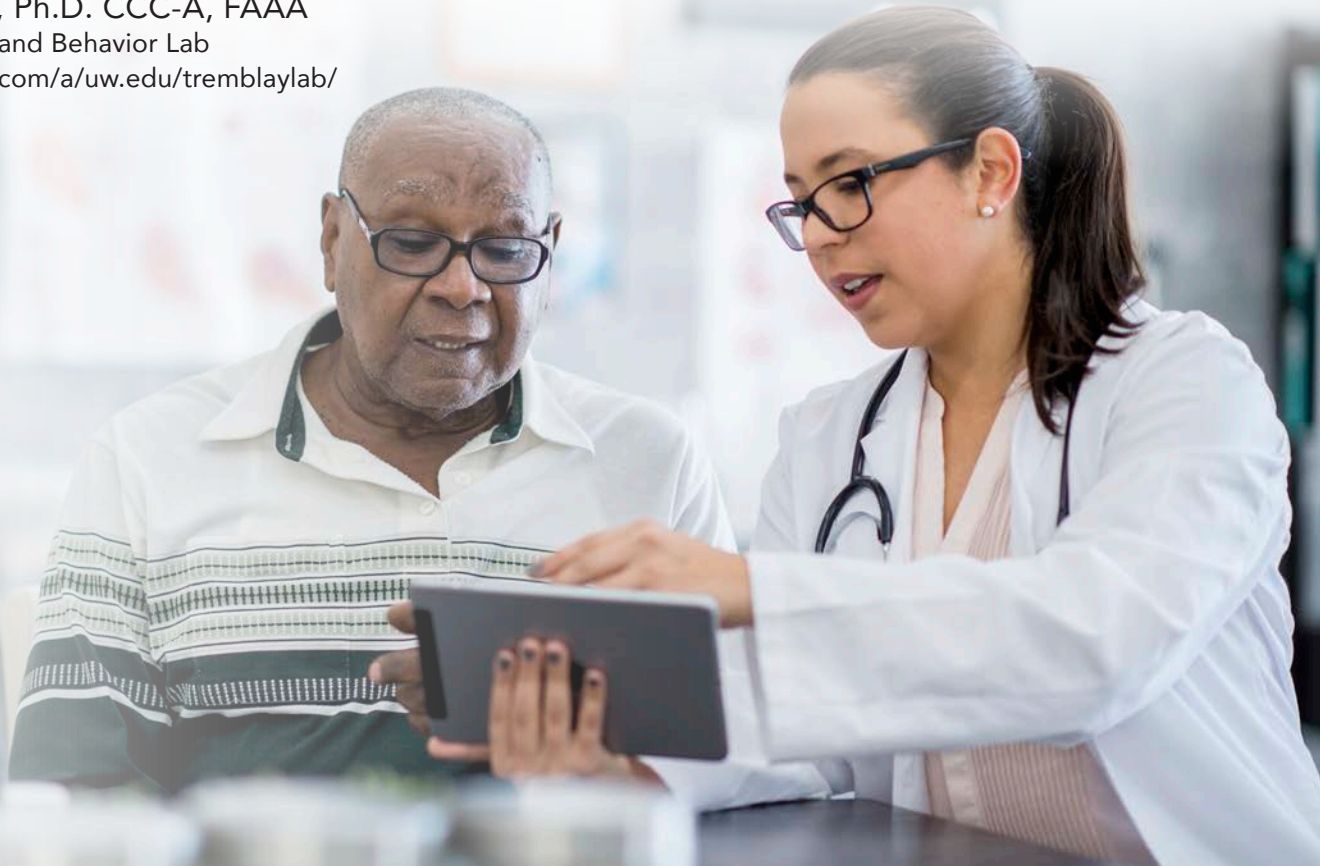
The Brain and Behavior Laboratory, directed by Dr. Kelly Tremblay, is giving consumers a voice by documenting their preferences for future hearing health care. Funded by the National Institutes of Health, Dr. Cornetta Mosley PhD recently presented her PhD dissertation research on the topic of trust. Trust in your hearing health care provider is important because previous studies have shown that older hearing aid users' distrust in online providers, and have a preference for face-to-face support, including the expertise of an audiologist. Therefore, moving towards online services and having amplification devices sold at big box stores may not be what consumers want.

The OTC Hearing Aid Act was approved in 2017, but the FDA has until 2020 to develop regulations for OTC type amplification devices. This is an exciting and interesting time in hearing health care, and it will take more research and time to determine how to best meet the needs of consumers in a way that is safe and effective.

Kelly L. Tremblay, Ph.D. CCC-A, FAAA

Research Lab: Brain and Behavior Lab

<https://sites.google.com/a/uw.edu/tremblaylab/>



CHANGING THE STANDARD OF HEARING CARE FOR ADULTS

By Susan Anderson, Au.D., CCC-A

The average time it takes an adult to seek help from the time they first notice difficulty hearing is five to seven years. Despite the advances in health literacy by the general population, that statistic has not changed for decades. Five to seven years is a very long time to have to struggle with your hearing.

There are in fact many reasons adults wait so long, mainly:

- Hearing loss is so gradual that it's difficult to perceive.
- Hearing loss is often partial, which means some sounds can be heard normally, creating the perception of normal hearing.
- There's no protocol to screen adults for hearing loss as a standard of care.
- People believe that hearing aids don't work.

In the U.S., we start screening for hearing loss at birth. Universal hearing screenings for babies has been a standard of care for almost 20 years because the effects of a delayed hearing loss diagnosis to a child's development are well documented. This practice ends around adolescence because the risk of an unidentified hearing loss dramatically decreases as we head into adolescence and adulthood.

Exposure to loud sound is the leading cause of hearing loss for adolescents and adults. It is so significant that the World Health Organization (WHO) is making hearing protection a leading initiative. According to their data, nearly 50 percent of people aged 12-35 years – or 1.1 billion young people – are at risk of hearing loss due to prolonged and excessive exposure to loud sounds, including music they listen to through personal audio devices.*

WHO is launching a worldwide healthy hearing initiative for 2019, which started on March 3 with World Hearing Day. WHO aims to draw attention to the importance of early identification and intervention for hearing loss. Too many people live with unidentified hearing loss that affects their productivity, their relationships and their overall health. Get your hearing checked regularly and practice safe listening!

*www.who.int/news-room/detail/12-02-2019-new-who-itu-standard-aims-to-prevent-hearing-loss-among-1.1-billion-young-people

SPEECH SOUND DISORDERS: ARTICULATION AND PHONOLOGICAL PROCESS DISORDERS

While many young children make speech errors to simplify speech production while they are learning to talk, by the age of eight, children should be correctly producing all sounds in English. Problems with articulation (making sounds) and phonological processes (sound patterns) are called speech sound disorders.

Many speech sound disorders occur without a known cause; sometimes a child simply may not have learned how to produce sounds correctly or might not have learned the rules for how to use speech sounds to make meaning differences in words. Speech sound disorders in children and adults can also result from a variety of causes such as:

- Developmental disorders
- Genetic syndromes
- Hearing loss
- Illness
- Neurological disorders

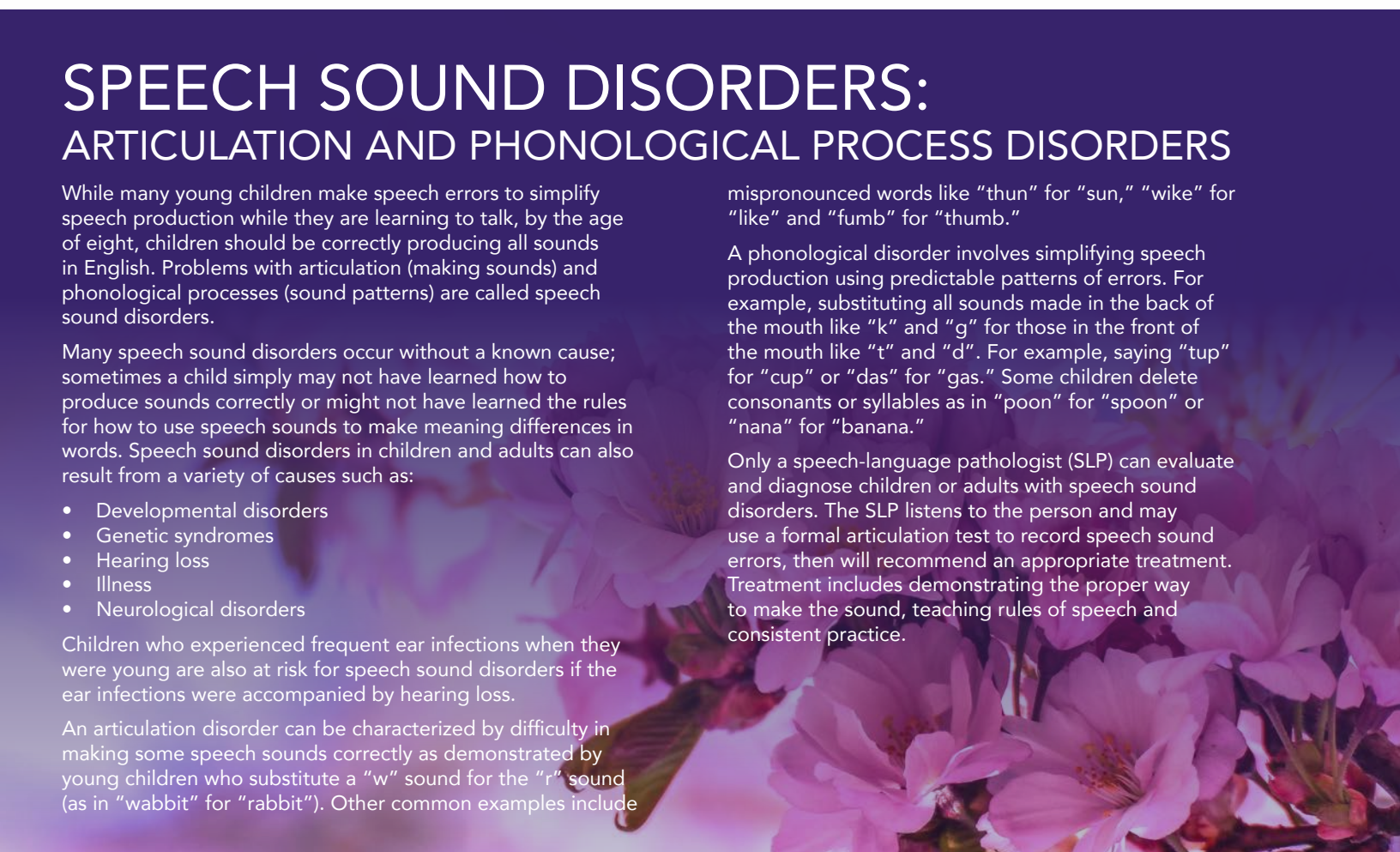
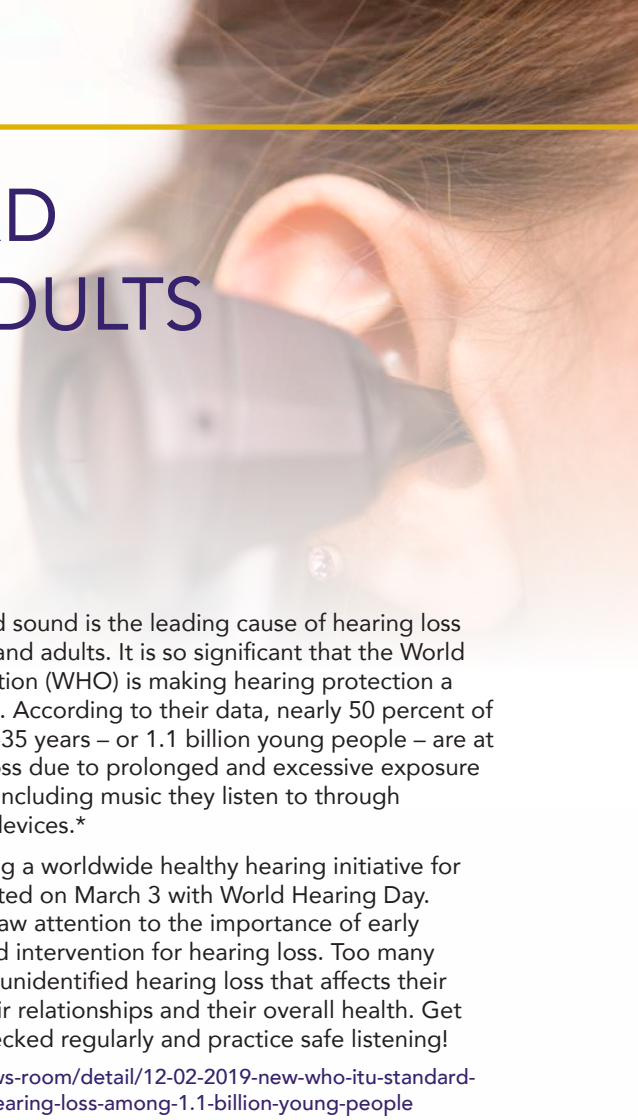
Children who experienced frequent ear infections when they were young are also at risk for speech sound disorders if the ear infections were accompanied by hearing loss.

An articulation disorder can be characterized by difficulty in making some speech sounds correctly as demonstrated by young children who substitute a "w" sound for the "r" sound (as in "wabbit" for "rabbit"). Other common examples include

mispronounced words like "thun" for "sun," "wike" for "like" and "fumb" for "thumb."

A phonological disorder involves simplifying speech production using predictable patterns of errors. For example, substituting all sounds made in the back of the mouth like "k" and "g" for those in the front of the mouth like "t" and "d". For example, saying "tup" for "cup" or "das" for "gas." Some children delete consonants or syllables as in "poon" for "spoon" or "nana" for "banana."

Only a speech-language pathologist (SLP) can evaluate and diagnose children or adults with speech sound disorders. The SLP listens to the person and may use a formal articulation test to record speech sound errors, then will recommend an appropriate treatment. Treatment includes demonstrating the proper way to make the sound, teaching rules of speech and consistent practice.



Help Others While Helping Yourself **UPGRADE & DONATE**

RECEIVE \$250 OFF EACH HEARING AID!

*Offer expires 06/30/19

The University of Washington Speech & Hearing Clinic developed the UW Hearing Aid Assistance Program (HAAP) to connect patients in financial need with donated hearing aids. HAAP gladly accepts all styles of used hearing aids. This is a tax-deductible donation.

If you are wondering whether it is time to upgrade your existing hearing aids, they typically last 4-6 years. New advances in hearing aid technology include Bluetooth® connectivity with smartphones, improved clarity and increased comfort in noise.

If the answer is "yes", we urge you to consider taking advantage of our Upgrade & Donate Program, which provides \$250 off each new hearing aid purchased with a donation of a used hearing aid.

*This offer is limited to \$250 total for economy level hearing aids.

