

Jordan Sack, MD'14: His early struggles with deafness and those who inspired him to help others

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PROVIDENCE – A cochlear implant has made all the difference in the life of PLME Alpert Medical School student and Brown '10 alumnus **JORDAN SACK, MD'14** – that and the tenacity of his mom, who first realized when he was 13 months old that there was a problem.

An East Greenwich, RI, native, Jordan is the oldest of the three sons of Drs. Steven Sack and Lisa Sack – his dad is an orthodontist and his mom is a dentist. When Jordan was born, infants were not screened for hearing as they are today. His parents sought medical help and tests revealed Jordan had a severe to profound hearing loss. His parents decided on an oral approach to therapy and before his second birthday, he was using hearing aids and working with speech therapists and audiologists several times a week.

When the FDA approved the use of cochlear implants in children, his parents took him at age 10 to New York University's Tisch Hospital, one of a handful of places where the procedure was done at that time.

Today, at age 26, Jordan plans a career in internal medicine. He has served on many organizations in the deaf and hard-of-hearing community and is now chair of the Rhode Island Commission on the Deaf and Hard of Hearing, an organization he began volunteering with in high school. Because of this involvement, one of his last projects at Alpert was designing an online survey to physicians for a community health clerkship project.

"There are about 9% of Rhode Islanders with a congenital or acquired hearing loss, or about 90,000 people of all ages," he said. His research on physician interactions with hard of hearing and deaf patients and their knowledge of resources available to these patients turned up scant information in the literature. With the assistance of the Department of Health, he sent out the survey and was gratified by the 400-plus responses he received as of March 6; he is now compiling the results.

Just prior to Match Day, Jordan sat down with RIMJ and spoke of the struggles of growing up oral deaf (does not use sign language) and the strength of those around him, who advocated for him and inspired him on his path to help others.

Without your hearing aid and cochlear implant, what is your level of hearing?

Severe to profound – when I take off my hearing devices, the quietest thing I can hear is the roar of a jet plane or the clapping of thunder.



PHOTOS BY MARY KORR

Born deaf, Jordan Sack, MD'14, is an advocate for the deaf and hard-of-hearing community in Rhode Island. He recently designed an online physician survey to research the interactions of doctors and these patients, which he is currently compiling.

What was your life like before the implant?

I couldn't hear the TV or radio, just static. There was no closed captioning then. I used to make up the plots for all the TV shows. Now that I can hear them, I can tell you my plots were better.

It was difficult to hear what people were saying, or to talk to friends, especially in noisy situations. That made it difficult to participate. In school, I was falling behind. I focused on trying to hear the words the teachers spoke, rather than understand what they meant. In fifth grade, my vocabulary was at a third-grade level. I couldn't speak well, and I sounded nasal. I couldn't articulate clearly – that was a big limitation with using a hearing aid. In fact, I couldn't hear the sound of my own voice.



The external Nucleus Freedom Cochlear Implant Jordan wears on his ear, which communicates with an implanted receiver.

Can you explain to me how the cochlear implant works?

A hearing aid takes sound and amplifies sound waves. We suspect my hearing loss stems from damage to the hair cells in the cochlear. But no matter how much you amplify the sounds, I am still not going to hear it.

The implant is basically an internal device – an electrode array – placed inside the cochlear in an effort to replace the function of the hair cells. The microphone on the external device transmits sounds, which are then converted into computer-coded signals that get relayed to the internal implanted receiver. These activate electrodes to stimulate the auditory nerve to send signals to the brain, which recognizes the signals as sounds.

What are your initial recollections of hearing with the implant for the first time?

I remember when it was first turned on. I could immediately hear voices and tell my parents' voices apart. The sound of their voices was surprising. Imagine you believed a certain color was blue only to find out it was not blue, it was orange, or to hear things in a certain way and then everything sounds different than the way you heard it yesterday.

I remember when we first left the NYU hospital and went out onto First Avenue. The noise of rush hour traffic was so intense I wanted to take off the implant. It was overwhelming.

How long did it take to adjust to the implant?

It took me a year to get used to it. The fact that I stimulated my brain with sounds for so long, from 13 months on, allowed me to transition smoothly to the cochlear implant. You can't wait 10 years and not hear anything and expect the implant to work right away. Today they do the implants at a much younger age and follow up with intensive speech and listening therapies.

What kind of work do you do as chair of the Rhode Island Commission on the Deaf and Hard of Hearing?

We work to empower deaf and hard-of-hearing individuals by providing services, educating the community, and advocate on a range of issues, including accessibility and communication adaptive technologies, the latter a rapidly advancing field. With the staff of three and 11 Commissioners, we meet with legislators, subcommittees, and work on upcoming bills in the legislature.

Currently we have six legislative bills in the Rhode Island House or Senate. As an example, House Bill 7577 proposes increasing insurance coverage of hearing aids from the current \$1,500 per ear every 3 years, to full coverage, for those under 19 years of age. For those 19 and older, we hope to increase coverage from the current \$700 per ear every 3 years to \$1,500. Any support we receive would be greatly appreciated.

How have your experiences influenced you in your choice of becoming a doctor?

My experiences and encounters in the hard-of-hearing and deaf communities, along with the support I have received from my parents, speech therapists, and audiologists have all been very inspirational and make me to want to give hope and support to others. I was honored to have given both my high school valedictory address and Brown's Phi Beta Kappa speech, especially since my parents were told that I would never be able to hear or to speak. I plan to continue my passion for patient advocacy and care while pursuing my residency in internal medicine. I am very thankful for the opportunities I have been afforded and for the wonderful support and guidance I have received at Brown. ❖