

Adaptive Tools and Resources

You can view this presentation at: youtu.be/ji5uHddIJF8

[00:00:04] **Sandy Hanebrink:** I am Sandy Hanebrink. I am a member of the community. I've had TM since 1987. I've been around all these years from TMA to now, and it's always my honor to be here, and I thank everyone for the opportunity. So, because of time, I'm going to go through things really quickly, but I just wanted to highlight many of the different adaptive tools and resources that might be available, and that I get a lot of calls for.

[00:00:50] Driving: there are a number of different driving aids and different type things. The ones I'm showing now is different types of hand controls, lever controls, spinner knobs, adapted quad grips, ramps versus lifts, even on RVs. But there's also now the autonomous vehicles that are coming available.

[00:01:17] There's hi-tech controls, joystick controls, even sip-and-puff controls. And so, some of the places you can find where the rehabilitation specialists are would be www.aded.net, and that's where you can find someone who could assess you for driving, and what type of adaptations would work, and even do the trainings.

[00:01:41] With home modifications: it covers the gamut of everything from simple things like, up in the top right, there's oven rail guards -- so you don't burn yourself -- to couch canes, bed rails. The picture in the middle is of a drop hinge attached to a door. And what that does is, allow the door to drop back behind the door frame, so you get full access without having to do construction and widen the door. You only need two of these hinges for it to work on standard doors. So, it basically gives you two more inches of clearance to be able to get through the doorway.

[00:02:26] Handheld showers and stuff are readily available, but what you want to look for, if you need a handheld shower and you're seated, is that the diverter is at the bottom so you can reach it, and not up at the very top where it's like, "Yeah, I'm not switching that." So, a lot of hotels now, you're starting to see the diverters are separate controls. You can also put in a separate control for the handheld versus the overhead if you want to benefit from a rain head as well.

[00:02:56] Different types of home modifications depending on whether you rent or own: if you do rent, you have to be allowed to make the modifications, but they can require anything you do to be put back to the

original state. So, that could get quite costly if you're in a rental. But from everything from portable ramps to modular ramps to stair gliders -- stair gliders just sit, they actually mount to the steps, so you don't need any structural changes to your house if your steps are at least built to code -- and then they also make platform gliders now as well, platform lifts.

[00:03:34] And now, even home elevators are shaftless. So, they're like lifts, and basically, if you can cut a hole in the floor and make it go up, it can work. They make them for standing and for wheelchairs. You do need to check structurally, though, if it's a power chair or scooter, because you do have the added weight of that.

[00:03:54] And then, the last image there is Access Trax. Those are portable mats that you can give you access across grass, in the beach, and things like that. They also now have a smaller version that split, which makes it easier to carry, because this particular one is like 3x3 and it's a little bulky.

[00:04:12] This is me actually using the Access Trax myself. I use two sets, and then roll to the front, throw the next one down, and then daisy chain them. But even on thick sand, it's pretty easy to do. It's basically a polymer plastic mat that's got holes in it, so the sand and water goes through. They're relatively lightweight, and then it just gives you a surface to roll on, much like the mats that some of the municipalities and beaches put down, but these are plastic. They're used for temporary events too, and you can permanently install them.

[00:04:59] For vision tools: a lot of people don't know, all of these items that I'm showing on the screen now came from Amazon. So, talking scales, talking glucose monitors, mugs that tell you how full it is by tones. The very bottom one, I call it a whistler -- I'm not quite sure what it's called, but looks like a little doorbell almost -- but it's got a wire in it that you set over the ridge of your cup, and so you're not having to stick your finger in the cup.

[00:05:33] A friend of mine is blind, and he works at the theater. At intermission, he's pouring people's wine, sticking his finger in, so I bought him one of these. I'm like, "Don, come on. That's disgusting." And then, in COVID land, it's like, "Where's that finger been?" But anyway, so there's technology. It's very inexpensive, it's like \$9.

[00:05:57] Vision technology, again, is prescription readers. Walgreens and CVS, they have these for free. The labels are coded, and so they have an app now that will actually scan it for you, and give you all the information about your prescriptions. There's also an audible reader that uses RFID, that you can buy, and then they'll put the labels on for you. Personally, I like the free version better -- use the app.

[00:06:28] Talking pill reminders, they sell these at Walgreens, and these are just all over-the-counter type things, but if you want expensive versions, you can go to Mag Sight and some of those other vision catalogs and they'll sell you expensive ones, but there's cheap ones.

[00:06:47] So, one of the technologies that I like both for vision and cognition is OrCam. What OrCam is, it's about the size of a magic marker, but not quite as long. And it's a camera that converts text, both close and distance, it reads it to you. So, if you have any learning disabilities, whatever, it works.

[00:07:13] It can be handheld, you can put it on your glasses, side of your hat or on a headband. It recognizes faces depending on which version you get. It does facial recognition, so it learns who your contacts are, and as people are approaching, will tell you who it is.

[00:07:29] It will identify products, and scan the barcode, and tell you what's on the shelf or what the product is, so you're not potluck reaching into the cabinet and grabbing, you think, chicken soup and you got spinach.

It does currency, and you can pick the country, so it's reading the currency, so you're not giving somebody a \$100 bill when you meant to give them a \$1 bill, because they will rob you.

[00:07:57] It also identifies color. So, those are all built into OrCam, so it's a pretty innovative device. Some of the Vision Technology, there's MyMe which is AI technology. Again, this is a device that typically gets attached, people who are using canes. It works like the Google Glass, so that's available.

[00:08:24] One of the newer ones, and I have the app, so somebody wants to try it out, it's free, is HapticNav. So, if you do have sensation, you don't need the device; your phone will actually vibrate. You can actually put in a GPS location, and it will help navigate you and let you know if you're going the right way based on the how it vibrates.

[00:08:47] Some airports have now subscribed to it, and so you can actually do internal wayfinding as well. So, you could put in what gate you want to get to, and then find your way and not have to wait for the mysterious accessibility people to show up whenever they eventually show up. They also have a wearable device, which is the WayBand, that syncs with the app and vibrates, so that you can do hands-free, so you don't have to hold your phone or direct your phone in the direction you want to go.

[00:09:19] This is really cool. I just found out about this two days ago, and they're taking orders now and ships 1st of the year. It's called Glidance. So, for people who are cane users or even wheelchair users, my description of it is: do you know the little Fisher-Price Pop thing? It's shaped like that but a little bigger and taller for adult size, but the handle is an adjustable height. It also has AI technology built-in, and so it acts as a guide.

[00:09:52] So, even if you don't know the community you're in, it helps you navigate around obstacles with the AI built-in. Maybe I'm using a trail; it's guiding me around stumps, and benches, and whatever, but it also is telling me things that might be of interest to me -- a bench, a waterfall --or if I stop, it allows it to give me an image description of the scenery that I'm looking at. So, it's really cool technology that is just hot off the presses.

[00:10:28] Looking at adaptive grips: many of these things are things I've used myself. The Active Hands is an adaptive universal cuff-type tool. It's been made better than any of the other ones I've tried; things don't slip out of it. And so, it's basically a glove that has Velcro on it that allows my quad hands to be able to hold on to a weight, to be able to hold on to the skis when I do sit skiing, to the ski rope, but it allows you to grip heavier things when you don't have grip.

[00:11:08] To the right of that is -- it looks like a trigger you might have on a squirt bottle -- but it's a five-finger grip that you can actually slide your index finger into, and then your other fingers grip the handle to allow you to write if you don't have some stability.

[00:11:31] To the right of that, at the top, it's a blue silicone, a hand holding an egg-shaped device that's holding a spoon -- and that's called NuMuv. What I like about this one is, you can throw it in the dishwasher because when you use it for your toothbrush, it gets gunky, or you're eating and you spill food or whatever, so you can wash it.

[00:11:57] And even if somehow you left it in the oven -- I've had a patient who left it in the oven, came back to tell me, "Hey, guess what? It didn't melt." I'm like, "Did you just test this, or how did it?" She said, "Well, I was working with a spoon and mixing something, and I forgot to grab it." But she said, "The spoon's not looking so good, but the NuMuv is still good."

[00:12:18] The other one is Good Grips OXO. You can buy them at -- well, Bed Bath & Beyond is nowhere to be found anymore -- Amazon. They make both just a built-up grip that is really good for people with limited grip, but they also make one that's bendable. So, if you need to adjust that spoon or fork so that it bends at an angle that you can control it and not end up wearing your food, you can do that. And so, you just have to look for "bendable" when you're purchasing it. And they make them for small spoon, a large spoon, and a fork.

[00:12:58] But OXO makes a number of accessible products from apple cutters, and bowls, and whatever, that are all designed for the original inventor, was for his mom who had rheumatoid arthritis with quite significant hand deformities. The other one is a blue silicone, is a Universal Cuff. It's again just a universal cuff that can be used for multiple items, a toothbrush, a hairbrush.

[00:13:26] Accessible computer access and environmental controls: iGaze for iPad. There's actually an app built in the iPad, so you don't have to buy new iGaze. So, the newer versions of iPad have iGaze built in and more accessibilities. Your higher-end power wheelchair joystick has a Bluetooth Joystick. There's switch access. ClickToPhone app is a free app that allows for use of any Bluetooth or switch access on a device.

[00:14:01] The Contour Roller Mouse is a regular keyboard mouse. They make a laptop version now too. That's my favorite; that's the one I use every day because you don't have to have fine motor, you just roll with your wrist. If you push down, it selects, and then you can program the buttons, and then it has a small roller. So, it's a lot of programmability.

[00:14:24] And then, your everyday smart home technologies: your Nest thermostats, Alexa, Google, Apple Home, Z-Wave plugs, everything like that. And then, you have built-in voice input and Dragon Dictate.

[00:14:41] Most time with Dragon Dictate now, I only use Dragon Dictate if it's specialty. So, if someone's in medicine that needs to use voice because the vocabulary is built-in, law school, someone does science that they need certain symbols, we'll use that. But otherwise, the built-in technologies are very superior now than what they used to be.

[00:15:04] Brain-computer interface: this is what I've spent the last two years consulting with, on the research and development side, and I'm really excited about this technology. If you look up BCI, Brain-computer interface, on CNN with Synchron, S-Y-N-C-H-R-O-N, there are two videos that explain it. What's really cool about this technology, someone that doesn't have use of their hands at all can control their computer.

[00:15:35] And even someone who doesn't have vision, if they can use the audible devices, with their thoughts, they can control the computer. It is minimally invasive. It relies on stent technology. They go in through your neck and then into the vessel at the center of your brain, but it's been quite remarkable to be able to control your computer. As well as, we've been working with Amazon, and so now people can control Alexa as well. So, it's been through finishing up Phase III trials, and a limited rollout is expected next year at sites where they can implant the devices.

[00:16:22] Accessible gaming: Google, Xbox, they all have controllers. There's also the QuadStick that has been developed. That's a really high-tech device, but a lot of the adaptive controllers are there. If you go to "12 Adaptive Gaming Controls for Disabled People" on LifeZest, L-I-F-E-Z-E-S-T, you can find the latest and greatest of controllers that are there.

[00:16:55] Mounts: there's all kinds of mounts. One of the higher-end ones is Mount'n Mover. They have both manual and electric, so you can switch control even if you don't. What I like about this one is the user can

use it. It's so adjustable, gets out of the way for care, but also is where you need it when you want it, and the adaptability to multiple devices.

[00:17:19] The Modular Hose by Loc-Line is everything from phone, and switches, and tablets, and things. You can mount both to wheelchairs and to other surfaces. And then, Tenikle is one that someone gave me for Christmas, and I love it because it's suction cups. I use it in my car to hold my phone for GPS, I use it to hook my camera, my GoPro and stuff to my kayak, and things like that. So, there's a lot of adaptability. And well, Mount'n Mover is covered by insurance, but Modular Hose and Tenikle are very inexpensive.

[00:18:04] Wheelchairs galore: my favorite one that I've got, everything from a transport wheelchair that someone pushes you to, a custom rigid-frame chair, folding chair, power chairs with a captain seat, the ones that tilt forward for you to reach, ones that stand or tilt in space, portable power chairs that fold up for travel and transport, scooters that will do the same.

[00:18:31] But my most exciting one -- GG you want this chair -- is the FX because it actually folds. It's a rigid-frame chair, but the front folds, and then it fits in every overhead and closet, even on small planes, lessening the likelihood that the airlines kill your wheelchair.

[00:18:52] Power assist: GG has one kind, I have another, but there's everything that these are add-ons, either to wheels or underneath the chair with a joystick, or like the SmartDrive that can be done with a Bluetooth switch or a speed dial. Invacare has one, the SMOOV, and then the Firefly that makes your everyday chair look like a motorcycle almost.

[00:19:24] Different kinds of walkers: everything from rollators and high-arm ergonomic walkers to gaiters, which come from behind rollators. Then, one of the ones I like for people with mobility and balance issues is like the knee walker but actually has a seat, so you can sit on it and propel yourself and not worry about falling.

[00:19:49] Different types of crutches, and grips, and tips, different types of braces, AFOs, KAFOs. Walking technologies: I think a couple years ago, I wore my exoskeleton here. Some are just for the clinic, some are for home use. Bioness uses E-stim to help with drop foot. C-Brace and E-mags use an active stance, which are basically robotic AFOs and KAFOs.

[00:20:24] Accessible recreation: everything from adapted grips for fishing, mounts for guns, tools to help with scuba diving when you have limited motion, all-terrain power and manual wheelchairs, adapted holders for oars and kayaks and canoes, outriggers for canoes, and then last picture is that in the blue kayak is actually me coming down an accessible kayak launch.

[00:20:56] So, other sports and recreation: from Action Trackchairs, which look like tank-tread power chair which goes on trails in the beach. Lasher makes a beach wheelchair that you can propel yourself. Different types of hand cycles: some that are three-wheeled that sit up high, that's equal to your wheelchair; some that attach to your existing wheelchair; or the low ones that you see like in paracycling events for racing.

[00:21:23] Different kinds of beach chairs: again, like the big PVC-type beach chairs that someone has to push you, Mobi is a low one that someone has to push you, but it allows you to get into the water and get back in it without tipping over. The PVC ones are going to float away or dump you out.

[00:21:44] To three-wheel racers: some of the people here have tried the Alinker. So, any of you that have gait issues but you still want to get out and do trails and walk, Alinker now is small enough to actually fit in and

use as a mobility device. So, you can get exercise, but it's totally on your power. It's two front wheels and then one small back wheel with a seat on it. So, it looks like a tricycle, but there's no pedals.

[00:22:09] So, you actually propel it with your feet and you purchase it based on your height. It will fold in half and fit in the trunk of your car, so you don't need a truck to transport it. To Race Runners, which give you support to be able to put your chest on the plate in front, and then has handles there so that you can hold on and then run and have that stability in the Paralympics.

[00:22:37] Most of the time, that's individuals with athetoid cerebral palsy or other gait. So, we have seen some people with ADEM and transverse myelitis qualifying in this area as well because they have enough balance issues to prevent them from running or would not qualify them as to use racing wheelchairs.

[00:23:00] This is really cool. Pearl TV is a consortium of all the major networks. And if you see on your TV -- my TV had it, I didn't know what it was until two days ago -- is NextGen TV. It's free TV with an antenna. You do have to purchase the antenna, but it's quite robust if it's available in your area. By 2025, it will be everywhere in the US.

[00:23:25] With NextGen TV, it allows AI for captioning and image description. You can set it to what language you want, interpreters, you can set the size of the screen of the sign-language interpreter and where it goes, you can interact with the show. If you go, "Oh, that's cool shoes that person's wearing," you can actually zoom in on it and see what the person is doing. You can look and see what does that necklace say that they're wearing.

[00:23:59] I mean, it's really cool. I played with it a couple of times just a couple of days ago at the conference I was at. It's really amazing. But what it also does is it ensures that when emergency services -- I just came through Hurricane Helene -- and there were hardly ever captioning or interpreters available, or they'd zoom in and then not keep the captioner in the picture. What this would allow is you to control that. And you get the information in real time, in the color, size, way that you want, and the language that you want. And again, it's free.

[00:24:39] So, back to the days when we had antennas, and we could watch NBC, CBS, ABC and PBS. There are actually more channels out there now than that, but it's free. So, for those of you who are looking to decrease all your streaming and expenses and things like that, if you have a NextGen TV and it's available in your area, you just have to purchase the antenna.

[00:25:07] We're trying to get the FCC to do a program through the CAP program, where you get phones and stuff for free if you're blind, or hearing impaired, or have significant hand. We're trying to get them to offer these antennas through that program, so stay tuned on that.

[00:25:25] Possible funding: so, it's like, how do you pay for all this? The Association of Blind Citizens has a technology fund. The Kelly Brush Foundation has grants for individuals. The Challenged Athletes Fund has grants for individuals, and it doesn't have to be for elite competition. It may just be like, I got a Kelly Brush Foundation grant for beach wheelchair, so that when I'm at my beach condo, I can go to the beach myself and not have to hope that a chair is available.

[00:26:01] Great Bike Giveaway, that's a huge program especially for youth in order to get adaptive bikes. The Giving Angels Foundation, Oracle Health Foundation actually helps with van conversion expenses and home modifications as well. Small Steps in Speech has different computer access technologies even if your problem isn't speech.

[00:26:25] And then, your State Assistive Technology (AT) programs in every state, plus Puerto Rico and Guam, have state (AT) ACT programs where you can have both online exchanges, or they have demonstrations. They have short-term loans, so you can try things before you buy it. Some of them have cash-loan programs as well, and some of them have like a used equipment type thing.

[00:26:57] Abilities Expo: if you want to see a lot of these different things, go to the Abilities Expo. It's a total consumer-based show, so you can actually see it, try it, and see all kinds of different recreation and events. The ones left this year is this weekend in Fort Lauderdale, and then in Dallas, for anybody, it's Texas, December 6th and 8th. But if you go to abilities.com, you'll see all their dates. Definitely a show worthwhile seeing.

[00:27:31] And then, this is my contact information. I am Sandy Hanebrink. My organization is Touch the Future. I also am the physical agent for the Caravan for Disability Freedom & Justice, that I thought was done. We've been doing since March, traveling across the country, celebrating disability rights history, promoting disability voting rights and registration, and then working towards things for the future, like Latonya Reeves Freedom Act which codifies the Olmstead decision that says, "We have a right to choose where we live and get the services supports we need."

[00:28:04] We actually have 230 bipartisan cosponsors in the House, so now it's on to the Senate, even in this Congress. My contact is admin@touchthefuture.us. My mobile phone and WhatsApp is 1-864-221-4011. If you can't find me, Chitra and GG will send you to me. But I'm here to answer questions or direct you to whatever resources is for specific needs too. So, thank you.