# Sensation Assessment

## Edited Video Transcript

### Assessment Techniques—Explain, Demonstrate, Assess, Report

**Light Touch.** Okay, so now how do we actually do that assessment? Our principle here [that] we've covered in class is pretty darn simple, you know. We're going to first explain because that's what we always start with—we always start with explain. So, “I'm going to just test your sensation. If you put your hands up here… I'm going to look at light touch,” you know. Light touch is that ability to detect just a real light touch across our skin.

So, “I've got this cotton ball, and I'm going to ask you to close your eyes. I'm going to touch a finger. I'm just going to ask you to tell me what finger I'm touching, okay? First, I'm going to do it with your eyes open where I'm pretty darn certain you can feel, right, because it's rude to touch people with their eyes closed with something they don't know what it feels like. That just seems weird. So, I'm going to have you feel it to make certain it's not noxious to you. You may hate this, okay? Then, I'm going to have you close your eyes. Just tell me what finger I'm touching, yeah.”

And I would do several trials. I normally do five, and then I'd report on accuracy. So I'm saying, you know, three out of three trials with good accuracy. So, I don't think sensation. I don't think light touch is the problem, but we have all these other types of sensation to worry about.

**Sharp versus Dull.** The next one is sharp versus dull. Our classic way to do this is with a safety pin. I have a straight pin here, okay? So, “Savannah same thing—what I'm going to have you do is, if you just turn your hand over, sometimes, I'm going to touch you with dull. Sometimes, I’m going to touch you with sharp, okay? So, close your eyes and tell me which, okay?”

Five out of five trials, again you notice—I did sterilize this beforehand because if I touch a little too far and break the epidermis, I don't want to transmit an infection. That would be rude, okay?

So, what's my next assessment? Well, look on the sheet in front of you. Oh, I didn't hand out my sheet—that would help. Sorry, that would help! Yes, great question. Good guesses by the way.

**Temperature.** Oh okay, so temperature, yeah, it's actually pretty good. We have these temperature probes. They've been soaking in water. So, it's the same idea. “First eyes open. We're going to look at your ability to detect temperature, okay? Yep, so it's on your hand. Turn your hand over and see if we can get cool, yeah. Not super warm? I would agree, need to warm this up a little more.” Well now the nice thing is, I can do this…okay? I don't even need eyes closed because hot looks exactly the same as cold. But I’ve got my temperature gauges to tell me which. Yeah, I didn't have time to heat everything up first, okay. So all of these so far, by the way, they're all about this registration—is it above this threshold? So what we can see is [that] you all were able to detect this sensation. All of the things I did were above your threshold.

**Sims Weinstein Monofilament test.** Now, let's look at some more specific ways to measure that threshold. This is the Sims Weinstein Monofilament test. You're fine Katelyn. So, each of these has a little piece of plastic on the end, and you're going to touch that person just hard enough that the plastic bends, okay? See that little hair, and then the hair bends. As they go down, they're just slightly thinner, slightly thinner, okay? What you do is, you start at a spot where you think they can feel, okay? “First is watch. Now go ahead and close your eyes, okay, keep your eyes closed. Go and turn your hand over. Tell me what finger I touch, okay?” I'm feeling like she's probably got that, so I'm going to go down a size. “That's fine, you communicated to me. I can jump down a couple sizes. Come on, open your eyes up. Just open your eyes, really watch it. Really watch it. Watch the string bend as you're touching.” So, this at 2.44, below her threshold of feeling. This is her sensation, feeling, okay?

Well actually what the data shows is if you can detect any of the greens, this is normal sensation: “You're normal, all right?” But if we get to these reds, and you have difficulty: “You have a loss of protective sensation. We worry about you burning yourself, all right?” So, we would actually go through and document the minimum level you can detect. That's one way we can measure.

**Two-Point Discrimination Disk.** Let's look at another way. This [tool] is our two-point discrimination disk. This is our ability to tell if it's one point or two points when the points are progressively closer together. So, “Sometimes, I'm going to touch you with one. Sometimes, I'm going to touch you with two, okay? And I just, yeah, can you feel one or two? Okay, so I'm going to have you close your eyes—one, two, two—open your eyes up. That's really hard to tell. That's right at your threshold for what you can detect as two points that are separate from one another. This is again normal, but think about assembling this into function if the closest two points you can tell apart, or that that's a problem, right? That makes me worried. That makes me feel like we're going to have an issue, right?”

**Proprioception.** Think about writing—when am I am holding on to the side of the pen? Or, am I holding on to the base? Is it on my finger? All right, think about reaching into your pocket for coins and trying to put coins into the meter. We're into the vending machine now and that ability to pick up a handful of coins and slot them in, okay? So, “Brynn, now demonstrating, yeah you got it; don't escape, okay? All right, so now probe—tough?” Okay, proprioception—*proprioception* is that ability *to know where our body is in space*, okay? “So instead, what you're going to do is, I'm going to move this arm; I'm going to close your eyes. I want you to copy with the other arm, okay? So eyes closed.” You see how she can mirror this with her eyes closed? “You can open your eyes.”

She knows where her right arm is in space without even paying attention to it, without looking at it, that's because she has these proprioceptors that are communicating with her brain, okay? Now you can go get your lunch.

**Stereognosis.** So, our last one is our stereognosis—*stereognosis is the ability to identify objects by touch alone* without sight. So, we have these stereognosis kits. They have a bunch of separate items. What you're going to do is lay out some items in front of your partner—in front of your clients. Yeah, I want them to see them exactly because it's more of a standardized task that way. If I hand you random objects, who knows what I hand you. “So, I'm going to have you just turn your hand over, close your eyes, and I put an item in your hand. Just want you to tell me what it is. You can move it around; you can feel, okay. So, here's a fun one—eyes closed again. What's that coin? What's *that* coin? How about *that* one?” Okay, you can go really challenging on this. “You can open your eyes up.” Uh, you were mistaking, okay? No it's in reality; I would never do that to a client because that's pushing it a little bit. But you did really well, you know, able to pick out this is a coin, this is a key. She's able to recognize these without sight. This is that level of perception, right? It is not just registration, not just, “Oh I can feel that,” but, “[I feel it and] I make sense of it?”

**Stereognosis with Client’s with Aphasia.** So, back to our concept on aphasia. Often these kits will have these drawings you can add in. So if somebody's having trouble communicating verbally, you can put these behind a screen so they can't see but have these laid out so they can just point to the right item, all right?

So, that is kind of a rough overview of how we do these assessments. You solve for all of them. It's the same procedure—*explain* what you're going to do, *show* them. *Show them on themselves. Practice with eyes closed*, okay? So, I'm going to have you practice that with your partner.