

The Touch System

Our sense of touch allows us to feel the world around us, and plays a pivotal role in everything we do, whether it is working at a job, or learning at school. It lets us sense our environment, and similarly is essentially for letting us interact with the environment. Unlike other senses such as vision, or hearing, our sense of touch is not located only in certain parts of the body, but is located all over. Through our skin, we can sense temperature, and whether something is hot, or cold.

Through our hands, we can touch someone, pick up an object. Our sense of touch lets us be gentle when picking up an egg, or firm when picking up a heavy book.

Touch (Tactile) Hypersensitivity

A child who is hypersensitive to touch finds a wide array of textures and light touch to be overwhelming to the nervous system.

Behaviours that may be seen?

- Children may try to keep a large 'personal space' away from others. They may "over react" to certain situations that others are able to ignore (for example, routine jostling in a school hallway, or someone brushing up lightly against them).
- Upset by light touch.
- Hands – dislikes "dirty" – touching unfamiliar textures – avoids touch
- Body – sensitivity to clothing types and tags in clothing
- Will seek out more personal space, or a larger 'personal bubble' from others
- Withdraws when touched
- Refuses to wear certain types of clothing
- Complains about having one's hair or face washed
- Avoids getting one's hands dirty (i.e. glue, sand, mud, finger-paint),
- Uses one's finger tips rather than whole hands to manipulate objects.

Strategies for the child who is sensitive to touch

Although the child may be sensitive to light touch, deep pressure touch (a.k.a. "heavy work") can be soothing (because it is 'tactile inhibitory'). Tickling is a good example of how light touch can be activating and arousing, as well as unpleasant at times.

Common examples of soothing deep pressure include:

- Getting a massage, or having a person press down on the child's shoulders
- Having a pet, heavy blanket, or weighted blanket on the child's lap
- Snuggling into a couch
- Hugging a parent, pillow or pet

School examples include:

- Weighted vests
- Lapweights, which is a blanket or weight that a child can place in their lap
- Weighted backpack (ideally with 10% of the student's body weight) – an adult can ask the student to put on their backpack during stressful times, e.g. transitions
- Asking the student to carry objects, e.g. books

Muscle activities such as:

- Wiping down the blackboard
- Cleaning desks
- Playing on play structures
- Avoid situations where there will be unexpected touch
- Place the student in the front or the back of a line, but try to avoid placing student in the middle





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- Warn the student ahead of time when the student will be touched
- Making allowances for sensitivity to clothes by cutting off tags
- Getting 'seamless' clothing
- Allow for deep pressure oral stimulation, e.g. by chewing gum, straws, plastic tubing, ice, frequent water breaks, snacks such as licorice, raisins, popcorn, having water bottles
- Therapeutic Wilbarger brushing, which is a technique taught by a trained OT to parents, which consists of methodical, deep brushing on the skin combined with joint compressions, can eventually help to reduce hypersensitivity. Ask your Occupational Therapist for more details on this.



Strategies for the child who is sensitive to clothing (such as tags)

- Second hand clothing shops, as they have clothing which has been pre-washed many times, which should make that it is softer
- Opt for clothing made of softer materials such as cotton or viscose rather than polyester



Touch (Tactile) Hypersensitivity: Oral Hypersensitivity

Behaviours that may be seen

- Doesn't like certain food textures in the mouth
- Avoids any new foods with new colours, textures, or tastes
- Avoids foods with mixed textures. For example, smooth foods with lumps, e.g. spaghetti sauce with meat, stews with meat and vegetable chunks
- Has a very limited diet due to avoiding various other things
- May have a strong preference for temperature of food or drink, and be sensitive to any variations
- Preferring to eat different foods on the plate separately, e.g. eating all the meat first, then all the potatoes, then all the peas

Strategies

- If the child's nutrition is compromised, discuss with your doctor
- Consult an Occupational Therapist trained to teach the Wilbarger Oral Desensitization Program
- Encourage the child to use "mouth fidgets" such as gum, chewing on straws etc.
- Encourage the child to take part in oral-motor games such as blowing bubbles, using whistles
- When introducing new foods/textures, do a gradual or stepwise approach
- For example, if the child likes apple juice, and you are trying to introduce orange juice, you can try to gradually introduce it with another tolerated food/drink:
 - Day 1: Give the child 100% apple juice
 - Day 2: Give the child 75% apple juice, and 25% orange juice
 - Day 3: Give the child 50% apple juice, and 50% orange juice
 - Day 4: Give the child 25 % apple juice, and 75% orange juice
 - Day 5: Give the child 100% orange juice

The above example is only a guideline, speak to your Occupational Therapist for more advice or strategies

Touch (Tactile) Undersensitivity

Children who are under responsive to touch input are not able to register the touch cues that are required to function efficiently. For example, they don't notice that their clothes are twisted or that they have food all over their face.



Behaviours that may be seen:

- The person will seek out touch stimulation, and thus appears to touch too many things
- Consistent avoidance of or difficulty with fine motor tasks such as writing, cutting, buttoning, zipping and tying shoes
- Need to look at objects in order to correctly identify or manipulate them
- Crashes into people or walls
- Craves messy activities

Strategies

- Having things to fidget or play with
- Allow for deep pressure oral stimulation, e.g. by chewing gum, straws, plastic tubing, ice, frequent water breaks, snacks such as liquorice, raisins, popcorn, having water bottles.

Ways to increase tactile stimulation in the mouth:

- Chewing on pens, straws, gum etc.
- Crunchy foods (pretzels, crackers etc.)
- Chewy objects (pens, rubber tubing, gum etc.)
- Sucking (through a straw, water bottle, hard candy)
- Biting (apples or carrots)
- Pulling (liquorice strings, fruit roll ups)
- Licking (lollipop, popsicle)
- Blowing (through a straw)
- Salty (popcorn)
- Sweet (candy or dried fruit)
- Sour (sour candy or pickles)
- Spicy (salsa or cinnamon)

