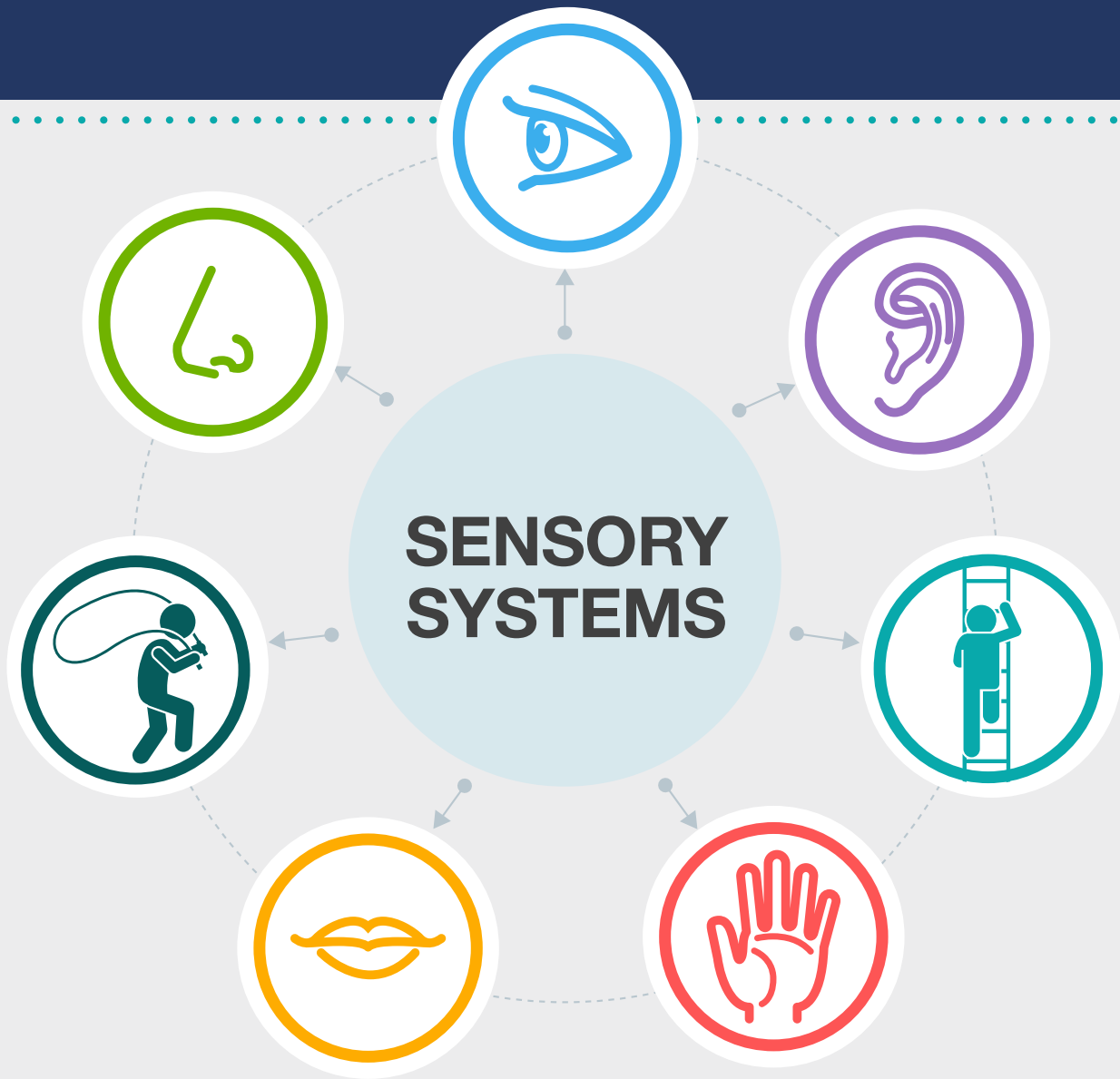


ASSIST:

Autism Sensory Strategies,
Information, and Toolkit



Introduction to ASSIST

Sensory features are a part of the diagnostic criteria for individuals on the autism spectrum.^{1,2} Understanding these sensory features and how to support individuals on the autism spectrum who have a negative experience related to sensory features is important and can help guide interactions.

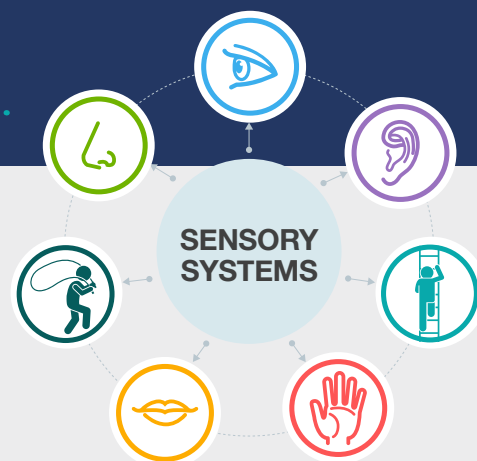
While there are several variations of terms to describe sensory features^{3,4} and different patterns of sensory features^{5,6}, in these handouts, we will discuss three types: hyper-reactive, hypo-reactive, and sensory integration. The first portion of ASSIST will define these terms and introduce the seven senses.

Next, a dedicated handout for each sense is provided to describe the potential sensory-related behaviors or responses commonly associated a hyper-reactive response, hypo-reactive response, or difficulty with sensory integration. **Keep in mind that every person has individual experiences so a responses may vary.**

- If an individual on the autism spectrum and/or their family identifies specific senses that are important to support, the handouts will be useful to guide your collaboration with them to identify strategies or adaptations that may be helpful.
- If you do not know of specific senses that need support, use these handouts as a proactive guide to best support individual on the autism spectrum should they need these sensory supports.

Further, each handout includes considerations that can be helpful in situations when the individual on the autism spectrum encounters a police car or an ambulance, and/or when in a crowded area, shelter, or home. These are a few environments that justice professionals may be interacting with individuals on the autism spectrum, so it is important to have access to strategies in adapting or preparing the environment to best support sensory needs.

The final portion of each sensory handout involves toolkit suggestions. These are items or strategies that justice professionals can have accessible.



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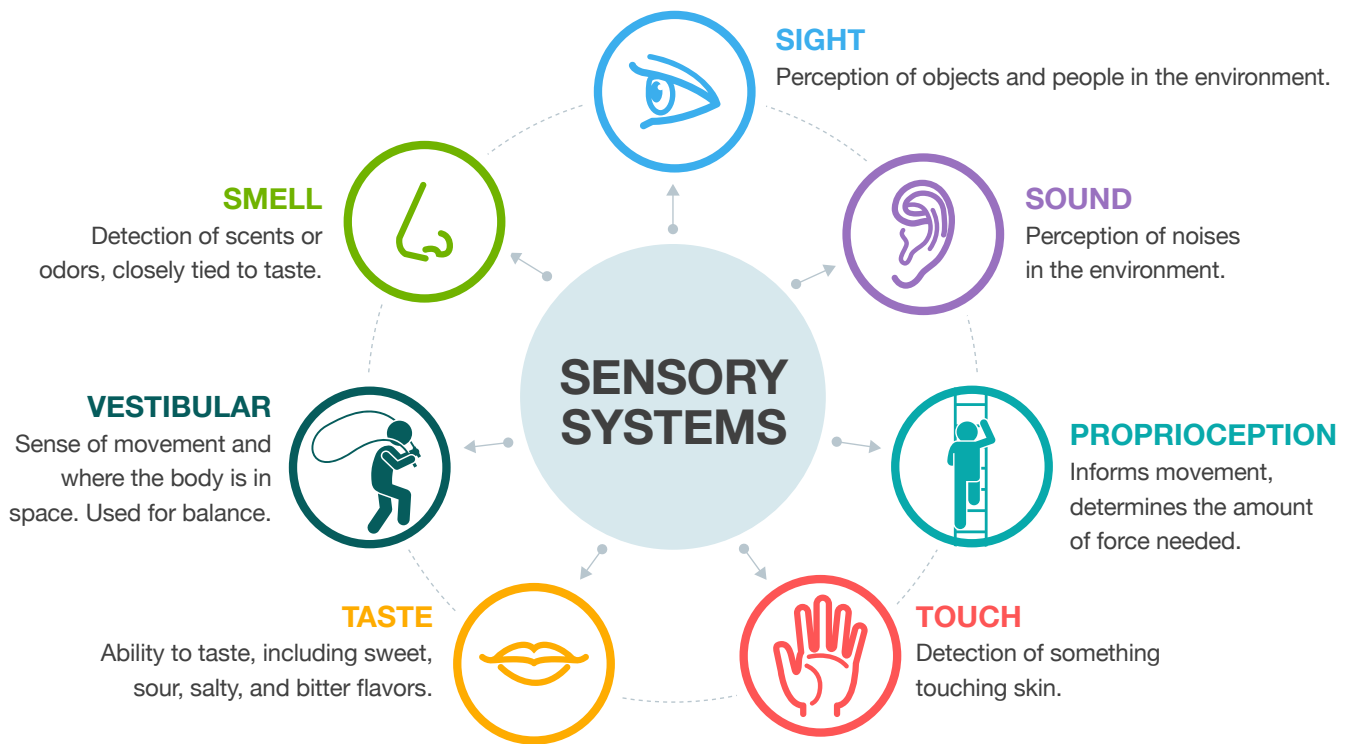
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Sensory Features: Hypo/Hyper Reactivity to Sensation or Combining Sensations

Hyper-reactive: Reacts strongly to stimuli that other people would not notice

Hypo-reactive: Does not react, or barely reacts, to stimuli that would bother other people

Poor Sensory Integration: Difficulty integrating two or more senses simultaneously such as sound and sight (e.g.: Hearing something and looking at it), or touch and sight (e.g.: Feeling something and looking at it). Poor praxis or difficulty using the body to figure out how to perform tasks and actions is one result of poor sensory integration.



SENSORY TOOL KIT:

A set of items and/or resources used to support people on the spectrum, their families, and providers in meeting sensory needs.



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Sight and Strategies

Hyper-reactive	Hypo-reactive	Sensory Integration
<ul style="list-style-type: none"> ■ May cover/close eyes to avoid bright lights and colors.¹ ■ May dislike flashing lights and bold colors.¹ 	<ul style="list-style-type: none"> ■ May seem unaware of the visual environment.¹ ■ May have difficulty finding things in a visually busy environment.¹ 	<ul style="list-style-type: none"> ■ Directions may require individuals to follow sight and sound can be a challenge.⁴ ■ May experience dizziness trying to follow visual cues while moving.⁵

ENVIRONMENT/CONTEXT CONSIDERATIONS

Police Car/Ambulance:

- Strong, bold colors can be overwhelming (*color lights, clothing, walls*).^{2,3}
- Patterns on walls, clothing, furniture can be distracting and disorienting.^{2,3}
- Sudden changes in light can be alarming; provide a warning before turning on bright lighting (*patrol car and ambulance sirens*).^{2,7}
- If using an unmarked car with a sunroof, keep shade closed.²
- For sunlight from windows, if available, can use window shades or covers.²
- Filling out paperwork can be a stressful task due to the small text; provide opportunities to or the option to fill out the paperwork with larger text or help to write the information for the individual.

Crowds/Shelters

- Patterns on walls, clothing, furniture can be distracting and disorienting.^{2,3}
- Individuals may need extra time to acclimate to changes in light intensity (*turning lights on/off, natural light to artificial light*).^{2,3}
- Adjust room lighting to be darker or dim the lighting.^{3,6}
- If available, use shades to dim overhead fluorescent lighting.⁶
- Be mindful of light glare reflecting off of flooring, TVs, computers, tablets, phones, and other reflective surfaces.^{2,3}
- Filling out paperwork can be a stressful task due to the small font and dense text; provide movement breaks or the option to fill out the paperwork with larger and concise text.



SENSORY TOOL KIT



Use a phone to show pictures and create a sequence of steps for what the individual should expect to happen.³



Sunglasses to alleviate brightness.



Lava lamps and slow-moving videos or projections can reduce stress.⁶

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Smell and Strategies

Hyper-reactive

- May only eat certain foods, show discomfort or fear of foods due to the smell.¹
- May be aware of smells others do not notice.²
- May experience physical discomfort or nausea from certain smells.³

Hypo-reactive

- May be unaffected by strong smells.²
- May not notice unpleasant smells.²
- May seek to smell items or fixate on objects with certain smells.⁶

Sensory Integration

- Closely related to taste system which can impact consumptions of meals.⁵

ENVIRONMENT/CONTEXT CONSIDERATIONS



Police Car/Ambulance:

- Be aware of strong smells and take steps to limit them.⁴
 - Limit presence of strong-smelling food or drink, including gum or mints, in the car.⁴
 - Can cut side of air freshener bag instead of fully opening it, or choose air fresheners with a more neutral or mild scent.⁴
 - Be aware after getting gas for a vehicle that scent could be too strong.
 - Scent from alcohol wipes, disinfecting sprays, or hand sanitizer could be overwhelming.
- Avoid using strong smelling lotion, perfume, or cologne.^{3,4}
- Time the consumption of food or coffee to avoid odor on clothes.³
- Social story of potential experiences prior to entering a car or ambulance.¹
- Allow opportunities to open windows if scents are too strong inside, or to close windows if in traffic near areas with stronger scents (i.e. gas stations, other cars, food stops, cigarette smoke nearby, etc.)



SENSORY TOOL KIT



Essential oils or other pleasant smelling items (also have an item to put the scent on as appropriate including cotton ball, perfume strip, or other items).⁷



Calming music.³



Notepad and pen to ask and record the individual's preferred calming smells and any overwhelming scents/smells.



Have unscented soap options and unscented garbage/trash bags in car or center available.^{8,9}



Offer a variety of scented hand sanitizers.⁹



Crowds/Shelters

- Wear odor-neutral deodorant, avoid strong smelling lotion, perfume, or cologne.⁴
- Social story of potential experiences prior to entering shelter or crowded space.¹
- Able to move into a room or area further away from eating spaces like cafeterias.
- If possible, offer a shelter room/space with a window that can be opened/closed as needed.
- Scent from alcohol wipes, disinfecting sprays, bleach, or hand sanitizer could be overwhelming - give a warning if possible prior to cleaning a room/space or post a sign on the door outside of the room to indicate when it was cleaned.
- Be mindful of trash areas with some scented garbage bags being overly scented/fraganced.

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Sound/Auditory and Strategies

Hyper-reactive	Hypo-reactive	Sensory Integration
<ul style="list-style-type: none"> ■ May be sensitive or respond negatively (cry, flee, etc.) towards loud or unexpected sounds.^{1,2} ■ May be bothered by sounds that others do not notice, such as buzzing lights or crinkling paper. ■ May cover their ears or physically avoid the sound.^{1,2} 	<ul style="list-style-type: none"> ■ May appear unaffected or unresponsive to sounds.² ■ May not respond to their name, or to other auditory cues. ■ May enjoy making repetitive sounds.³ ■ May create loud sounds through banging or clapping. 	<ul style="list-style-type: none"> ■ Closely related to vestibular system; loud sound can impact movement.¹² ■ Difficulty following directions requiring sound and sight.¹³ ■ Individual may turn head away while listening. ■ May have challenges listening to directions when being touched.¹¹ ■ May cover their eyes as a means of blocking out the sound due to sensory disintegration.

ENVIRONMENT/CONTEXT CONSIDERATIONS



Police Car/Ambulance

- Reduce loud or piercing sounds¹:
 - Turn down radios/intercom and handheld radios to a minimal volume.
 - Turn cell phone alarms and ringtones to silent or vibrate.
- Provide warnings of potential loud noises, such as sirens or alarms, before they occur.
- If police or service animals are present, provide warning about potential noises such as barking and be aware it could be overwhelming for an individual.
- Provide fidget toys (*stress ball, putty, etc.*)⁸ or have a preferred object for comfort available.¹
- Play music that the individual or caretaker notes is calming for them.^{4,5,6}
- Ask caregiver what words or visuals can help explain that sounds are “safe” or “okay”.⁵
- Be mindful that talking too much can be frustrating and overwhelming. If direction is needed, it should only be provided by one person at a time.⁷
- Use a gentle tone and use direct questions at a slow pace.⁸
- Ask individual or caregiver what is comforting for the individual and what would help them relax.⁸
- Have a notepad available so that individual can write responses instead of talking.⁸



Crowds/Shelters

- Competing sounds can be an issue (*i.e., multiple radios/songs on, people talking, etc.*).^{6,7}
- Low intensity or common sounds can be frustrating (*i.e., people crunching food, sniffing, whistling, computer sounds, fluorescent light buzzing*).^{5,6,7}
- Give time to acclimate to sounds first by separating with distance or a door/another space first.⁵
- Provide fidget toys (*stress ball, putty, etc.*)⁸ or have a preferred object for comfort.¹
- Ask individual or caregiver what is comforting to him/her and what would help them relax.⁸
- Ask caregiver what words or visuals can help explain that sounds are “safe” or “okay”.⁵



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SENSORY TOOL KIT



Noise-cancelling headphones (*short-term strategy, long-term use can increase sound sensitivity*).^{1,5}



Fidget toys (*stress ball, putty, etc.*)⁸ or have a preferred object for comfort.¹



Visual supports or index cards with simple images to explain directions.¹



Phone to play a preferred song or music on repeat for comfort.^{4,5,6,8}



Social Story of potential experiences prior to entering police car/ambulance (<https://paautism.org/resource/what-are-social-stories/>).^{9,10}



Remember to speak slowly and give time for a response to questions. You may have to repeat yourself. No more than one person should be talking at a time.

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Taste and Strategies

Hyper-reactive	Hypo-reactive	Sensory Integration
<ul style="list-style-type: none"> ■ May avoid certain foods.^{1,2} ■ May have restrictive diets that require accommodations.² 	<ul style="list-style-type: none"> ■ May be less aware of bitter or sour tastes.² 	<ul style="list-style-type: none"> ■ Taste system works closely with smell system.² ■ Texture of food can impact satisfaction and enjoyment of food.⁵ ■ Individuals with known sensory challenges with smell, taste, and proprioception are more likely to refuse food.³

ENVIRONMENT/CONTEXT CONSIDERATIONS



Police Car/Ambulance:

- Be aware that an individual may be lethargic if he/she avoids foods and has not eaten or had a drink recently.³
- Be mindful of the foods or drinks that you may have had in your car that could cause an aversive/upset response from an individual.³
- Speak with individual or parent/caregiver about normal meal/snack time and routine, food sensitivities, and food/drink preferences if individual will need food (*i.e., if individual had blood loss from injury, or will require blood drawn and will need nourishment*).¹
- If someone has any health conditions (*e.g.: dietary restrictions, allergies, diabetes, etc.*), make sure to be aware of what foods an individual may need, or what foods to avoid.⁴
- Be mindful if an individual needs to eat and drink with medication and possible taste/flavor interactions with the medication and the food/drink.
- It may be challenging for an individual to have his/her meal time/snack routine or preferred brand of snacks changed or interrupted.¹
- Allow for increased time during meal times or snack breaks as the individual adjusts to the new environment.¹



Crowds/Shelters

- Be mindful that areas with a variety of foods and scents could be overwhelming for an individual - consider offering a spot further away from strongly scented foods and drinks.²
- Identify when a person's typical meal times or snack times are, and be mindful that interruptions or changes to that routine can be challenging or upsetting for an individual.¹
- Consider providing snacks that an individual can store in his/her room in case public eating areas are too overwhelming.^{2,3}
- If in a shelter, consider the available foods and what an individual will be able to eat and drink on a daily basis due to sensitivities (ask individual or caregiver/parent about preferred and non-preferred foods and drinks).^{2,3}
- Consider having options for toothpaste flavors as some of the mint-based flavors can be too overwhelming (*i.e., consider sweet-based flavors like vanilla or chocolate as options*).⁷
- Have a variety of cups and straws available for individuals who may have difficulties with drinking or with maintaining grips on cups.
- Allow for increased time during meal times or snack breaks as the individual adjusts to the new environment.¹



SENSORY TOOL KIT

- Have some snacks available (*i.e., bread-based, starchy, or salty snacks*).⁷
- Notepad and pencil to record individual's preferred/non-preferred foods and scents, and normal meal/snack time and routine.
- Have cup and straw options available.

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Touch and Strategies

Hyper-reactive	Hypo-reactive	Sensory Integration
<ul style="list-style-type: none"> May be sensitive to touch, avoid certain clothing, avoids touching tactile substance (e.g. peanut butter).^{1,2} May dislike crowded areas due to risk of being accidentally touched.^{1,2} May have an intense reaction to light touch.^{1,2} 	<ul style="list-style-type: none"> May not seem to notice touch, pain, or temperature.^{1,2} May enjoy rough deep pressure on the skin (hugs, pressure).^{1,2} 	<ul style="list-style-type: none"> May not be aware or notice light touch; sense of sight helps notice touch sensation.⁵ May have difficulty holding and grasping items; challenges related to integrating touch and proprioception.⁵ May have difficulty concentrating and listening to instructions when being touched due to discomfort.⁸ The touch system works closely with vision and movement to help guide and direct the body.

ENVIRONMENT/CONTEXT CONSIDERATIONS



Police Car/Ambulance:

- Physical touch can feel painful and uncomfortable; provide a warning before initiating procedures requiring physical touch.¹
- If physical touch is necessary, demonstrate that touch on a partner if possible.
- Various textures (clothing and bedding fabric, medical gloves, furniture) may cause discomfort/pain and lead to avoiding/pulling away from textures.^{1,3}
- If police dogs are present, reassure the individual that the dog will not bite them.
- Individuals may react strongly to being touched on or near cuts, bruises, or injuries, or they may seem not to notice such injuries.
- Individuals may try to avoid or remove unfamiliar textures (face mask, gowns, gloves, bandages). Allow individuals to touch materials or instruments with their hands before using elsewhere on the body.³



Crowds/Shelters

- Inadvertent physical touch in crowded spaces (bumping into, brushing up against people) can cause physical pain and distress.¹
- Individuals may have different preferences for texture of foods and may express dissatisfaction with food that is unrelated to taste and due to texture.¹
- Individuals may react strongly to being touched on or near cuts, bruises, or injuries, or they may seem not to notice such injuries.
- Various textures (clothing and bedding fabric, medical gloves, furniture) may cause discomfort/pain and lead to avoiding/pulling away from textures.^{1,3}



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- Provide options for fidget toys with different textures such as rubbery, stretchy, smooth, plastic, beaded, etc.⁷
- Visual cues during dressing, such as a mirror, can help visualize touch sensation⁶
- Provide options and a variety of textures for blankets, gowns, masks.⁵
- Social story for putting on hospital attire and wearing a facemask; a social story provides information in simple language and pictures to inform the individual about different processes and what to expect (<https://paautism.org/resource/what-are-social-stories/>).⁴

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Proprioception and Strategies

Hyper-reactive	Hypo-reactive	Sensory Integration
<ul style="list-style-type: none"> Generally not observed 	<ul style="list-style-type: none"> Movements may appear clumsy or awkward.¹ May bump into objects while moving.^{1,5} May have difficulty holding small objects, or applying correct pressure when holding items like a pencil.⁵ May play or interact too roughly with peers⁵ 	<ul style="list-style-type: none"> May have poor postural control.²

ENVIRONMENT/CONTEXT CONSIDERATIONS



Police Car/Ambulance:

- May have difficulty with signing documents due to too much/too little force when holding the pen/pencil and when writing on the paper.³
- Before getting in the car, provide time to do wall push-ups or jumping activity.⁶
- Provide a weighted blanket or other weighted item to place on lap while seated.
- Make sure to keep space clear of any fall/trip hazards.
- If filling out paperwork, provide movement breaks or breaks to relax hands and posture.









Crowds/Shelters

- Provide an arm's length distance of personal space.⁹
- Have heavy work options between activities or tasks (*options can include helping to set up chairs⁶ or carrying a heavy item.⁴*)
- Provide a weighted blanket or other weighted item to place on lap while seated.⁷
- Make sure to keep space clear of any fall/trip hazards.
- Schedule movement breaks (*examples: wall push-ups, jumping activities, or yoga*) if doing a task that requires sitting for an extended period.^{3,10}



SENSORY TOOL KIT

-  Weighted blanket, lap pad, or wrist/ankle weights.^{7,8}
-  Stretch bands (*i.e., can be used as fidgets to pull with hands in opposition or can be placed around chair legs to push against, can wrap around door handle for pulling/stretching, etc.*)⁶
-  Box with sand for increasing weight against hand muscles.⁶
-  Fidget toys or stress balls.³
-  Soft lead 2B pencils (*if individual is writing too hard and creating holes in paper*).³
- <https://www.amazon.com/Tombow-Drawing-Pencil-Graphite-12-Pack/dp/B00AQENMQ4>⁴
-  HB pencil (*if individual is writing too lightly and handwriting is illegible*).³
- https://www.amazon.com/AmazonBasics-Pre-sharpened-Wood-Cased-Pencils/dp/B071JM699P?ref=fsclp_pl_dp_3

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Vestibular and Strategies

Hyper-reactive	Hypo-reactive	Sensory Integration
<ul style="list-style-type: none"> ■ May fear of leaving the ground easily susceptible to motion sickness¹ ■ May avoid actions requiring movement or appear clumsy¹ during movement. ■ Difficulty changing directions while moving.^{1,2,3} 	<ul style="list-style-type: none"> ■ May not be aware of their own movement such as rocking.^{1,5} ■ Enjoy intense movement such as rocking or spinning without getting dizzy.^{1,3} 	<ul style="list-style-type: none"> ■ Vestibular system is closely related to the auditory system; loud noises may cause vestibular dysfunction such as dizziness.⁴ ■ Vestibular system also related to visual system; can experience dizziness while tracking or scanning.⁷ ■ The vestibular system works closely with the visual and proprioceptive (body sense) systems for balance. It is also important for keeping the body upright in sitting or standing.

ENVIRONMENT/CONTEXT CONSIDERATIONS



Police Car/Ambulance:

- Provide warning before starting to move the vehicle or initiating sudden turns.
- Avoid routes with road work or construction to avoid frequent stop and go movements or bumpy roads.^{1,3,4}
- May not sustain eye contact during verbal directions or conversation.^{1,3,7}
- Individual may lose balance or become dizzy while the vehicle is moving; take extra precaution when starting, stopping/braking, or turning the vehicle.³
- Provide extra time or be prepared for a delay in response with following directions requiring body movements.⁴
- Getting into and out of vehicles may cause loss of balance or clumsiness during movement.^{1,2,3}
- Allow the opportunity to sit in passenger seat instead of backseat; or to have access to a window for air.¹⁰
- Being placed on a stretcher and then moved backwards into an ambulance may be challenging.^{9,10}
- Making sure the person has a seat belt on for more stability while seated.^{9,10}
- Consideration of balance needs: if individual is handcuffed, perhaps an officer could provide walking support or have the individual's hands in front of his/her body instead of behind his/her back.²
- Consideration that clumsiness/stumbling or ability to follow finger-eye movements during tests may be due to vestibular difficulties, not drunkenness or due to concussion.^{2,6}
- Communication may be impacted; individual may have difficulty concentrating or responding when experiencing motion sickness⁸



Crowds/Shelters

- May need to provide space to allow movements such as jumping and spinning because a person may need movement to stay calm or to be alert.⁵
- Steps or uneven ground may be challenging to navigate and cause imbalance.^{1,2,3}
- Provide seating options that provide support/stability or opportunities for movement like a rocking chair or cushion.⁵
- If a shelter has bunk beds, consider the option of the bottom bunk to allow the person to be closer to ground if the person has a fear of gravity.^{1,3}
- Make sure to have railings or have someone walk with them when going up/down stairs to assist with maintaining balance.^{1,3}
- Ask the individual or caregiver (if needed) about preference for using stairs, elevator, or escalator.



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SENSORY TOOL KIT



Chairs or large exercise balls that rock can be relaxing and calming for hyporeactivity to movement as long as an individual can maintain his or her balance on the chair or ball (some individuals also prefer chairs that spin).¹¹



Provide stable four-legged seating with back support and limited movement for hypersensitivity.⁵



Provide a nausea bag in vehicles for motion sickness.



Provide a heavy blanket or bean bag chair to provide touch and pressure input to an individual's body to help calm an overreaction to movement.⁵



Provide opportunities to walk around or do light exercise to help support attention and focus.⁵



Play preferred music to help soothe and calm.⁹

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