**Session Aims:**

1. Review common sensory/perceptual disorders seen in people post CVA
   - Disorders of Tactile Perception
   - Disorders of Visual Perception
   - Disorders of Body Scheme
   - Unilateral Neglect
   - Disorders of Gnosis
   - Disorders of Praxis
2. Describe the impact of these on everyday task performance
3. Present ‘tips’ for how to interact with people who have these disorders
**Touch Processing**

- Visual Field
- Body Scheme
- Visual Perception

**Sensory Levels:**
- Sensory Awareness
- Protective Sensation
- Discriminative Sensation

**Problem – Touch Processing**

**Touch & Discrimination Impairment**

| Impaired capacity to process and interpret information about touch |

**Impact:** Difficulty registering touch information to form images

**How do you see it?**

- Injuries: bruises, scrapes, cuts, burns
- Ignore limb
- De-personalisation of limb
- Compromised use of limb

**Problem – Touch Processing**

**Touch & Discrimination Impairment**

**Absent Sensory Awareness =**

No detection or awareness of touch or deep pressure

**Problem – Touch Processing**

**Touch & Discrimination Impairment**

**Impaired Protective Sensation =**

Able to detect touch, pressure
Cannot tell Sharp/Dull, Hot/Cold
PROBLEM – Touch Processing
Touch & Discrimination Impairment

Impaired Protective Sensation:
- Able to detect touch, pressure
- Cannot tell Sharp/Dull, Hot/Cold

How do you see it?
- No response to painful stimuli
- Injuries: Burns, Cuts
- Compromised use

IMPACT:
- No response to painful stimuli
- Injuries: Burns, Cuts
- Compromised use

STRATEGIES:
- Absent & Impaired Protective Sensation
  - Protect from harm
  - Reminders to look & check where & what
  - Reminders to take care with temperature
  - Avoid excessive friction
  - Carry out regular skin checks
  - Care for skin integrity – dryness, etc.

PROBLEM – Touch Processing
Touch & Discrimination Impairment

Impaired Discriminative Sensation:
- Able to detect touch, pressure
- Able to detect temperature, pain
- BUT: Impaired 2pt discrimination
- Impaired position sense
- Impaired stereognosis

How do you see it?
- “Strange” feelings
- Excessive rubbing, tapping
- Excessive ‘handling’ of objects
- Cannot tell you where ‘touch’ is
- Uncoordinated, ‘unusual’ actions
- Fumbling

IMPACT:
- “Strange” feelings
- Excessive rubbing, tapping
- Excessive ‘handling’ of objects
- Cannot tell you where ‘touch’ is
- Uncoordinated, ‘unusual’ actions
- Fumbling

STRATEGIES:
- Impaired Discriminative Sensation
  - Sensory stimulation
  - “SENSe” protocol
  - Combined touch, visual & cognitive exploration
  - Paired touch & cognitive exploration
**PROBLEM – Touch Processing**

Touch & Discrimination Impairment

- **Hyperesthesia** (hypersensitive)
- **Allodynia** (pain experienced from benign stimuli)

**STRATEGIES**

Desensitization strategies
- Anticipate pain
- Prepare for touch
- Engage in co-touching

Caution with people who have had a stroke

---

**PROBLEM – Visual Field Loss**

Impaired capacity to process visual signals

**STRATEGIES:**

- Multisensory cues to 'look', scan, search for.
- Encourage 'looking' to find.
- Use other senses to compensate.
- Reminders re: safety.
**PROBLEM – Visual Perception Form & Space Impairment**

**IMPACT:** Difficulty perceiving or ‘seeing’

- The complete image
- Images as being same/different
- An image when it changes position in space
- The arrangement of objects/letters in space
- Differences in the dimensions of space

**How do you see it?**

- ‘Strange’ attempts at interacting with objects
- Difficulty getting objects
- Objects seen appear to be unfamiliar
- Parts of objects seem disconnected
- Unusual positioning of objects in space
- Over-reaching to get or touch an object

**PROBLEM – Visual Perception Form & Space Impairment**

**STRATEGIES:**

Stop mistakes as they happen
Use language to talk about…what, where
Guide correct interaction with.. and to locations
Engage cognition - encourage verbalisation about what, where

**PROBLEM – Visual Perception Form & Space Impairment**

Impaired capacity to process and interpret information about forms (what) & spatial positioning (where)

**PROBLEM – Visual Perception Form & Space Impairment**

Stop mistakes as they happen
Use language to talk about…what, where
Guide correct interaction with.. and to locations
Engage cognition - encourage verbalisation about what, where

**PROBLEM – Visual Perception Form & Space Impairment**

Impaired capacity to process and interpret information about forms (what) & spatial positioning (where)
**PROBLEM – Body Scheme**

**IMPACT:** Difficulty perceiving the body as a connected and complete form

**PROBLEM – Body Scheme**

**How do you see it?**

- Cannot find body parts
- Confuses own body parts with those of others
- Confuses objects with the body
- Does not use the body despite having the capacity to do so

**STRATEGIES:**

- Stop mistakes as they happen
- Add sensory stimulation
- Use language to talk about body parts
- Guide correct interaction
- Engage cognition – encourage/guide verbalisation about body parts

**PROBLEM – Unilateral disregard**

**IMPACT:**

- Preference for sound side
- Inattention to one side
- Disregard of one side
- Total neglect of one side

**Touch Processing**

**Visual Field**

**Body Scheme**

**Visual Perception**

**Somatosensory**

**Neglect**

**Visual/Spatial**

**Agnosia**

**Apraxia**
**PROBLEM – Unilateral disregard**

How do you see it?
- Ignores one side of the **body** – does not use it or interact with it
- Depersonalisation of body side
- Ignores one side of **space** – does not orient toward it, does not interact with it, does not act within it
- Ignores one side of **body & space**
- Turns body away from neglected side

**STRATEGIES:**
- Opportunities for sensory experience in neglected space / with neglected side.
- Encourage tracking by moving through space
- Sensory stimulation on neglected side
- Encourage search/find actions
- Use language: Talk about **two sides** (space, body)

---

**PROBLEM – Agnosia**

**Problem ‘knowing’ (a/gnosis).**
Perceptual disturbance of ‘recognition’

**IMPACT:**
- Misinterprets familiar objects, people, colours, faces, self, **disability**
- Bizarre use / mis-use of objects
- Confuses familiar people, faces, colours
- Depersonalisation of self and parts
- Unaware of disability
- **Unrealistic view of what is possible**
**PROBLEM – Agnosia**

**STRATEGIES:**
- Stop mistakes as they happen
- Use the correct name for things
- Guide interaction with things
- Explore/discuss features of faces
- Talk about the correct interpretation
- Ask person to repeat what you have told them – say the word

**PROBLEM – Apraxia**

**DIFFICULTY:**
- Difficulty planning (idea) and/or executing (doing) skilled movement patterns on command and/or spontaneously

**IMPACT:**
- Cannot make body (+ mouth) do what is required:
  - when trying: **Motor**
  - when asked to copy, pretend: **Ideomotor**
  - when required to conceptualise what to do: **Ideational**

**PROBLEM – Apraxia**

**How do you see it?**
- Difficulty directing movement via intentions
- Difficulty using eyes to direct movement
- Difficulty using sensory input to direct / correct movement
- No connection between thought and movement

**PROBLEM – Apraxia**

**STRATEGIES:**
- Stop the mistake
- Give the limb something to hang on to (distract)
- Encourage person to use sound hand to put/place the apraxic limb
- Add sensory input
- Shadowing
- Guide the action