

# UNILATERAL SPATIAL NEGLECT ASSESSMENT

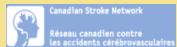


## USN Definition:

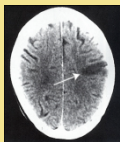
inability to orient to stimuli on the contralateral side of the brain lesion<sup>1</sup>

## Prevalence:

>40% have post-stroke USN-more common following a right-sided stroke<sup>2</sup>



To obtain a copy of this pocket card, please contact us at: [strokengine@gmail.com](mailto:strokengine@gmail.com)



## Does a middle cerebral artery stroke lead to USN?

➔ **Yes**, because the right inferior parietal lobe is affected

## Other affected brain areas leading to USN<sup>2</sup>:

- right parieto-temporal junction
- angular gyrus
- parahippocampal region
- right superior temporal cortex

There are 3 types of USN<sup>3</sup>:

- 1. Personal neglect:**  
Neglect of one side of body
- 2. Near extrapersonal neglect:**  
Neglect of environment within reaching distance
- 3. Far extrapersonal neglect:**  
Neglect of environment beyond reaching distance

## Best practices<sup>4</sup>:

- Patient should be screened for USN within 48 hours of admission using a recommended validated tool (indicated by a \*)

## References:

1. Paolucci S, et al. (2002). *Arch Phys Med Rehabil*, 82, 743-749.
2. [www.strokengine.ca](http://www.strokengine.ca)
3. Menon A, Korner-Bitensky N. (2004). *Top Stroke Rehabil*, 11(3), 41-66.
4. The Canadian Stroke Strategy. *CMAJ*, 179(12suppl), E1-E93.
5. <http://www.medicine.mcgill.ca/strokengine-assess/>

Find the latest updates on [www.strokengine.ca](http://www.strokengine.ca)

## Recommended Screening Tools:

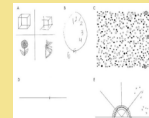
### Personal space:

- \* Comb and Razor Test<sup>5</sup>



### Near extrapersonal space:

- Albert's Test<sup>5</sup>
- \* Line Bisection Test<sup>5</sup>
- Single Letter Cancellation Test<sup>5</sup>



### Personal and near extrapersonal space:

- Hemispheric Stroke Scale<sup>3</sup>
- National Institutes of Health Stroke Scale<sup>5</sup>

### Near and far extrapersonal space:

- Semi-structured Scale for the Functional Evaluation of Hemi-inattention<sup>5</sup>

## Recommended Assessment Tools:

### Near extrapersonal space:

- \* Motor-free Visual Perception Test (MVPT)<sup>5</sup>
- \* Ontario Society of Occupational Therapists (OSOT) Perceptual Evaluation<sup>5</sup>
- \* Rivermead Perceptual Assessment Battery<sup>3</sup>

### Near and far extrapersonal space:

- Behavioral Inattention Test<sup>5</sup>

### Personal, near and far extrapersonal space:

- Catherine Bergego Scale<sup>3</sup>



# UNILATERAL SPATIAL NEGLECT TREATMENT



Effective Interventions <sup>1</sup>	Level of Evidence
Prisms	Strong (1a)
Eye patching	Limited (2a)
Trunk rotation	Limited (2a)
Limb activation	Limited (2a)
Visual-motor imagery	Limited (2b)
Neck/hand vibration	Consensus (3)
Caloric stimulation	Consensus (3)



To obtain a copy of this pocket card, please contact us at: [strokengine@gmail.com](mailto:strokengine@gmail.com)

## Prisms<sup>1</sup>:

- Prisms deviate the visual field 10° to the right. Patient must repetitively point to two targets located at either side.



## Treatment schedule:

- 30 to 100 repetitions per treatment (10 mins) for 5 sessions/week over 2 weeks

## Eye patching<sup>1</sup>:



- Apply right half patches to both lenses of the patient's glasses or on goggles.

## Treatment schedule:

- To be worn during all waking hours anywhere from 1 week to 3 months with improved results according to the length of time worn

## Trunk rotation<sup>1</sup>:

- A thoracolumbosacral orthosis is worn with a bar projected forward above patient's head. Patient rotates their body to touch targets on either side with the bar.

## Treatment schedule:

- 1 hour/day for 1 month.

## Limb activation<sup>1</sup>:

- Patient actively moves their upper extremity on the neglected side.

## Treatment schedule:

- 1 hour/day, for 10 days over a 2-week period



## Visual-motor imagery<sup>1</sup>:

- Patient is guided to mentally visualize scenes and/or sequences of movements that encourage scanning of the neglected side.

## Treatment schedule:

- Three 30-minute sessions per week for 3 weeks

## Neck/hand vibration<sup>1</sup>:

- Vibration or stimulation is applied to the side of the neck or hand affected by USN to encourage scanning of the neglected side

## Treatment schedule:

- Not provided

## Caloric stimulation<sup>1</sup>:



- Cold or warm water is inserted into patient's external ear canal with a syringe. Cold water ↑ scanning toward the stimulated ear. Warm water ↑ scanning towards opposite ears

## Treatment schedule:

- 2-6 sessions

## Reference:

1. [www.strokengine.ca](http://www.strokengine.ca)

Current as of May 2010

Find the latest updates on [www.strokengine.ca](http://www.strokengine.ca)