### What is VSS?

### **Background**

Visual Snow Syndrome (VSS) is a neurological disorder that can impact an individual's vision, hearing, cognition, sensory processing, and quality of life. The condition is named after its most common symptom: visual snow, or seeing static, flickering dots, and flashing lights 24/7 (with your eyes open and closed). It is likened to trying to see in the middle of a snowstorm or through a snow globe that has been shaken up. Individuals with VSS can also experience many other debilitating visual and non-visual symptoms. VSS symptoms affect an estimated 2–3% of the world's population, impacting people of all ages and backgrounds daily.

#### **Causes**

The exact cause of VSS is unknown, but research suggests links to changes in the brain's visual processing centers, neural signal alterations between the eyes and brain, as well as hyperactivity in the visual cortex. A recent study supported by the Visual Snow Initiative found the first possible biological basis, revealing that the patterns of activity in two brain chemical systems (glutamate and serotonin) are different in people with VSS compared to those without the condition. Ongoing research is expanding our understanding of the causes, pathophysiology, and treatment options for VSS.

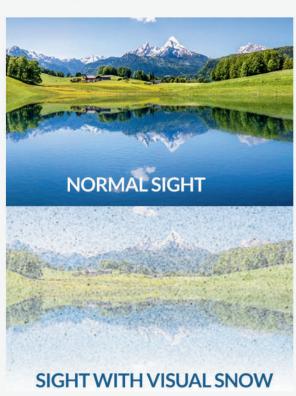
### Management

- Neuro-Optometric Rehabilitation Therapy
  (NORT), or neuro-vision therapy modified for VSS
- Mindfulness-Based Cognitive Therapy (MBCT), or MBCT-vision when modified for VSS symptoms
- FL-41 tinted glasses/chromatic filters
- Avoiding stimulants like caffeine and alcohol
- Identifying triggers
- Stress reduction to mitigate symptom flare-ups
- Retraining the brain to redirect attention away from visual disturbances
- Managing sensory processing challenges with earplugs, sunglasses, and noise-canceling headphones,
- Moderate physical activity for improved brain health, neuroplasticity, and neurotransmitter release
- Taking breaks and utilizing fidget tools, deep breathing, or guided imagery in triggering environments
- Creating a VSS-friendly sleep environment with white noise machines or a fan and avoiding blue light before bedtime
- Maintaining a healthy diet and staying hydrated
- Seeking support from friends or family members for emotional well-being



# Visual Snow Syndrome 101

INFORMATION ABOUT VSS





www.visualsnowinitiative.org

# Symptoms

### **Visual Symptoms**

- Visual snow (dynamic snow-like dots all over the field of vision)
- · Photopsia (flashes of light or small floating objects)
- Photophobia (sensitivity to light)
- · Palinopsia (continuing to see an image after it is no longer in the field of vision)
- Entoptic phenomena (seeing images within the eye itself)
- Diplopia (double vision)
- Nyctalopia (impaired night vision)
- Visual distortions
- Other visual effects (starbursts or halos)

#### **Non-Visual Symptoms**

- Tinnitus (ringing, humming, or buzzing sounds)
- Depersonalization (feeling detached from vourself)
- Anxiety
- Depression
- Frequent migraines
- · Brain fog and confusion
- Dizziness
- Nausea
- · Insomnia and other sleep-related issues
- · Paresthesia (tingling "pins-and-needles" sensations, commonly in the hands and feet)
- · Sensory disturbances (such as "brain zaps", or electric shock sensations)
- · Sensory Hypersensitivity/Hyperesthesia (sensitivity to stimuli, such as sights and sounds)
- ·Susceptibility to sensory overload (the brain receives more sensory input than it can handle, triggering a "flight-or-flight" response)

## Diagnosis

A thorough clinical evaluation, including medical history and an eye exam to rule out eye-related conditions, is crucial for diagnosing VSS. An MRI or EEG may sometimes be ordered to rule out other neurological conditions as well. Neuroophthalmologists, neurologists, and certified neuro-vision therapists are best suited for addressing VSS. The Visual Snow Initiative has created the first Diagnostic Criteria for VSS to aid confirmation. They also provide a global Directory of Physicians for diagnosis and treatment, addressing the challenge of finding knowledgeable medical professionals.



### Not Every Case of VSS is the Same

Living with VSS can be a different experience for everyone due to factors such as which visual or non-visual symptoms the patient experiences (in addition visual snow), as well as differences in the intensity and appearance of these symptoms. Other considerations include when the patient began experiencing symptoms (from birth or sudden onset), medical history, and the overall impact VSS has had on their life. The degree of impact VSS has on a person's life can range from mild to moderate to life-altering.

















The Visual Snow Initiative is a nonprofit organization dedicated to global awareness, education, resources, patient advocacy, treatment development, and research for Visual Snow Syndrome.



