

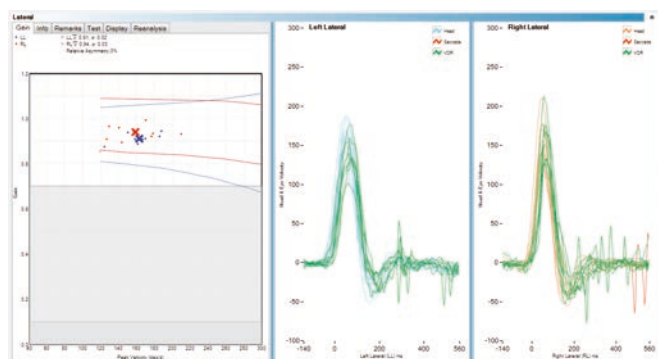
# ICS Impulse®      Suppression Head Impulse Paradigm (SHIMP)

## SHIMP TEST PROVIDES ADDITIONAL INFORMATION ABOUT THE VESTIBULO-OCULAR REFLEX SYSTEM AND IS ESPECIALLY USEFUL IN PATIENTS WITH BILATERAL LOSS

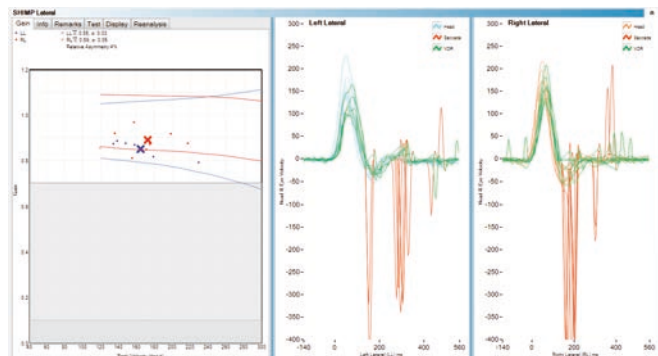
**Purpose:** Identify if vestibular residual function is present

**How is it different than head impulse test?** Head impulse uses an earth fixed target and SHIMP uses a head fixed target.

### WITHIN NORMAL LIMITS

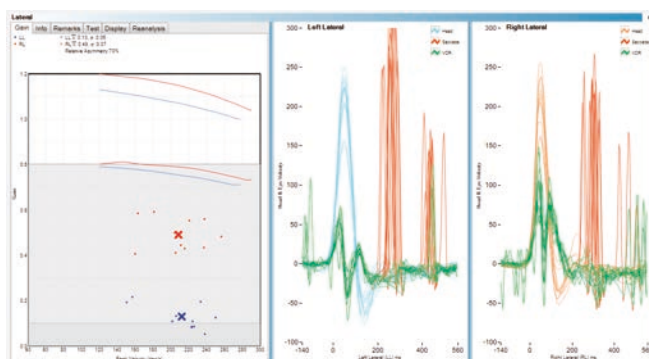


**vHIT** – gain within normal limits and none to very few catch-up saccades

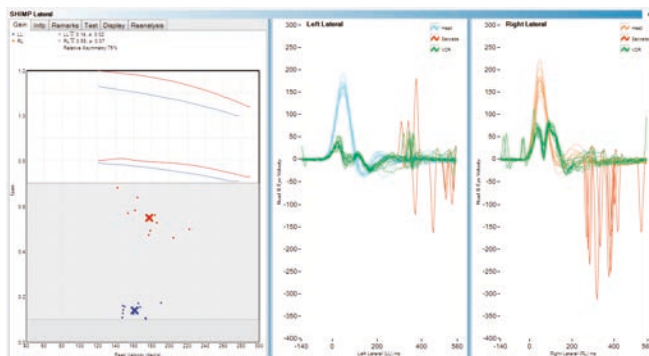


**SHIMP** – gain within normal limits and downward overt catch-up saccades with large amplitudes

### VESTIBULAR DISORDER



**vHIT** – abnormal gain and presence of covert or overt catch-up saccades



**SHIMP** - abnormal gain if overt catch-up saccades are present it is a sign of residual vestibular function (right side has vestibular function, left side is questionable)

## UNDERSTANDING BILATERAL LOSS:

### Rare

0.6 to 4% of patients

### Symptoms

Gaze instability with rapid head movements  
Oscillopsia  
Imbalance and unsteadiness  
Worsens in the dark

### Causes

Ototoxic Drugs  
Infection such as Meningitis  
Congenital disorders  
Autoimmune disorders  
Degenerative disorders  
Co-occurrence with cerebellar ataxia (CANVAS & Superficial Siderosis)

### Interpretation:

#### For bilateral loss – is it paralysis or paresis?

Catch-up Saccades present indicates vestibular function  
No catch-up saccades present indicates vestibular loss

### Reference:

MacDougall HG, McGarvie LA, Halmagyi GM, Rogers SJ, Manzari L, Burgess AM, Curthoys IS, Weber KP. A new saccadic indicator of peripheral vestibular function based on the video head impulse test. *Neurology* 2016, in press.