

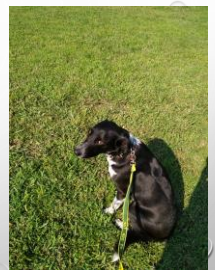
I am not speaking for the Federal Government.  
They do not endorse anything I am saying. It is  
all on me. ;)

The  
Only  
Failure  
is  
Never  
Tryin  
a

I get no money from any  
outside group to discuss any of  
this. (DANG IT!)

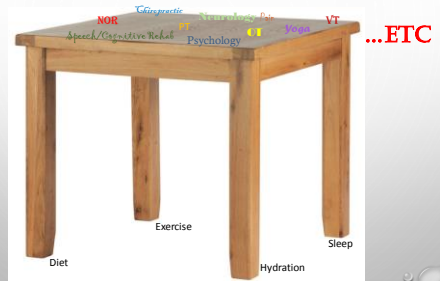
## OBJECTIVE

HAVE FUN!!!  
IF YOU'VE LEARNED  
SOMETHING NEW AND  
NO ONE HAS DIED,  
IT'S BEEN A GOOD DAY!



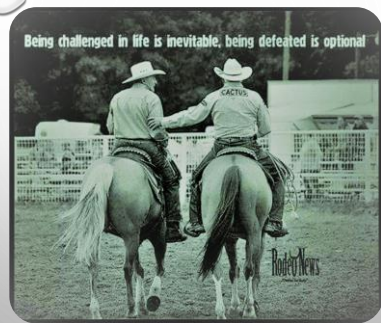
Brain Injury  
is a **Multi-  
Faceted  
Syndrome**

**Not** a Singular  
Diagnosis



## VMSS AND PTV'S PRISM APPLICATION WHERE TO START LEVEL II- NORA 2019

DR. TRACY L. M. AMMANN



## VISION

"A DYNAMIC, INTERACTIVE PROCESS OF MOTOR AND SENSORY  
FUNCTION MEDIATED BY THE EYES FOR THE PURPOSE OF  
SIMULTANEOUS ORGANIZATION OF POSTURE, MOVEMENT, SPATIAL  
ORIENTATION, MANIPULATION OF THE ENVIRONMENT, AND TO THE  
HIGHEST DEGREE, PERCEPTION AND THOUGHT."

*WILLIAM V. PADULA, O.D.*



## OPTOMETRIST

An optometrist is a primary care physician (or secondary or tertiary)  
who specializes  
in the vision and health of the eye and manipulation of the brain.  
(TLA)



## PATIENT

A PATIENT  
IS A WHOLE  
PERSON, **NOT**  
JUST A PAIR  
OF EYES ON  
A STICK.



## THIS IS SERIOUS STUFF...

**SUICIDE RATE IN MTBI**

- ❖ 3X HIGHER THAN THE GENERAL POPULATION
- ❖ MOST SAW THEIR PCP LESS THAN ONE WEEK PRIOR

**CONCLUSION:**

THEY WERE REACHING OUT FOR HELP, BUT WERE UNDERDIAGNOSED FUNCTIONALLY OR JUST NOT TAKEN SERIOUSLY...

ERIC SINGMAN, MD, PHD (NEURO-OPHTHALMOLOGY)  
PATRICK QUAIL, MCOPTOM, FCOVD, PHD (NEURO-OPTOMETRY)

## *VISUAL MIDLINE SHIFT*

- THINK OF IT AS A PERCEPTUAL SHIFT IN MIDLINE
- GLOBAL IMPACT



**IT'S NOT JUST HERE  
IT'S EVERYWHERE!!**

Although a specific area may be more traumatized than another, with TBI, the contra-coup affect causes involvement of multiple areas of the brain, causing brain wave interruption throughout the brain. The same goes for birth trauma, stroke, in-utero trauma, etc.



## POST TRAUMA VISION SYNDROME- PTVS

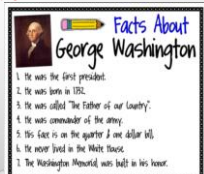
AMBIENT PROCESSING-GLOBAL IMPACT

X IMBALANCE BETWEEN FOCAL AND AMBIENT PROCESSING

### GEORGE WASHINGTON TEST:

!! PLEASE TAKE OUT A PEN AND PAPER  
AND FOLLOW DIRECTIONS.

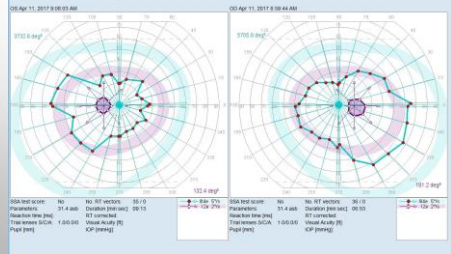
THIS IS INTERACTIVE  
PLEASE INTERACT!!



**Facts About George Washington**

1. He was the first president.
2. He was born in 1732.
3. He was called "The Father of our Country".
4. He was commander of the army.
5. His face is on the quarter & one dollar bill.
6. He never lived in the White House.
7. The Washington Monument was built in his honor.

Multiple @urpressure events, VIBID 6 months ago, 1 IED Inq, 4 RPGs in Afghanistan  
HIAs 3-5 x per week, memory issues, Drifts R and clips the R, Rumblestrip guy, Sleep 6 h per night,  
waking often (sleep study said 90 X), hypervigilant, problems keeping up with conversation, likes to  
read, overwhelmed easily.



## GAIT AND BALANCE EVALUATION

PATIENT REPORTS: DRIFTING AND CLIPPING ON THE R  
RUMBLESTRIP GUY

EVALUATION: DRIFTS AND TIPS R AND L  
BACK ON HEELS

VERY SLOW AND GUARDED WITH WALKING BACKWARDS

- HORIZONTAL
- THROBING WEIGHT
  - TIPPING
  - SHOULDER DROP
  - HEAD TILT
  - DRIFTING
- VERTICAL
- LEANING FORWARD
  - BACK ON HEELS
  - WEAR PATTERN ON SHOES
  - HEAD FORWARD OR EXTENDED UP

## Gait and Balance evaluation without prism.

Patient is in for initial evaluation

- Complaints of
- x balance & dizziness
  - x headaches
  - x anxiety
  - x temper
  - x vision fluctuations

Drifts Right  
Back on heels  
Tips Right and Left

## Gait and Balance evaluation with prism.

This is 3 minutes later with prism in place.

Note changes in gait, balance and posture.

Perceptual world has been adjusted being from up and to the right, back to center.

The film is no longer moving. The perceptual world is stable to allow for processing to be more effective in all areas.



## MIDLINE SHIFT TEST

### HORIZONTAL

#### • QUESTIONING

- DOORS AND DRIVING

### VERTICAL

#### • QUESTIONING

- TRIPPING, TIPPING AND STAIRS



## How can I check for VMSS??

It's not an expensive endeavor

Can Be Performed with VOMS!



Just grab a pen





### ***OUT OF PHOROPTER VERTICAL TESTING***



### **HOW DO I CHECK FOR A VERTICAL? VERTICALS CAUSE:**



- Dizziness
- Balance issues
- Reading difficulties
- Agitation
- What do you need?
- Septum 8.5x11
- Chart, cardboard
- Horizon measure
- Card, p.d ruler
- Is one side higher than the other or is it going straight across?



### ***COMPENSATORY VS. THERAPEUTIC PRISM***

#### **YOKED PRISM**

#### **BASE IN PRISM**

#### **• EQUAL VS UNEQUAL**

- TREATING VMSS AND UPREGULATING AMBIENT PROCESSING SIMULTANEOUSLY

ALWAYS CORRECT FOR COMPENSATORY PRISM BEFORE STARTING ON THERAPEUTIC



## ***WHERE TO START***

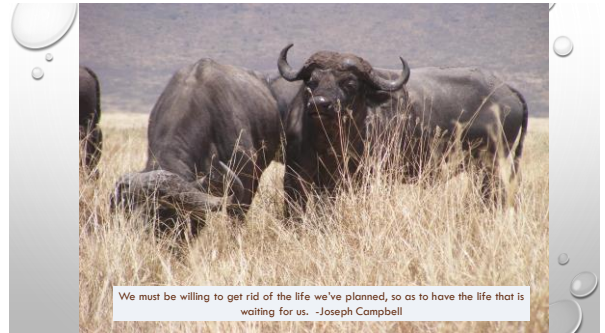
R VMSS OR L VMSS

- SEVERITY

ANTERIOR OR POSTERIOR VMSS

- SEVERITY

INCORPORATING VERTICAL FROM OOP TESTING



## ***HANDS ON***

CHECK PARTNER'S MIDLINE

- DOCUMENT

CHECK PARTNER'S VERTICAL

\_\_\_\_\_ BU OD/OD

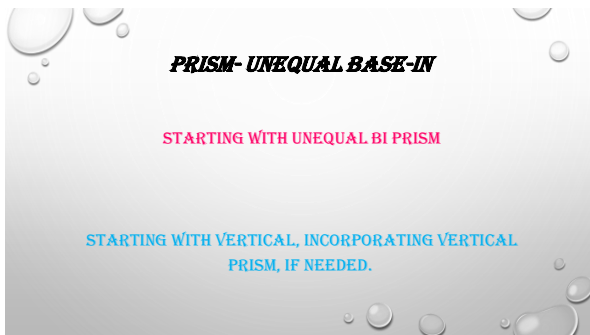
OBSERVE GAIT AND BALANCE

- DOCUMENT

## ***WHAT DO YOU DO WITH AN ENIGMA?***

### **FLIP IT AROUND**





**PRISM-YOKED**

1 BI 1 BU OD .5 BO 1 BU OS

DETERMINATION OF DIRECTION

WHERE TO START

**REEVALUATION OF GAIT**

AFTER PRISM

- NO MORE DRIFT
- MORE STABLE- NO TIPPING
- ABLE TO MOVE MORE QUICKLY

X NOT GUARDING OR CAUTIOUSLY WALKING BACKWARD

**BINASAL TAPING**

3/8" BINASALLY



TO TAPE OR NOT TO TAPE

- HOW MUCH?
- AT WHAT ANGLE?

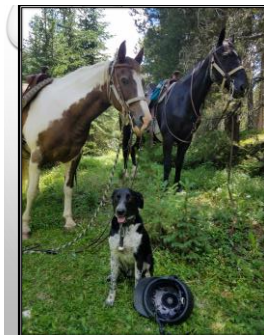
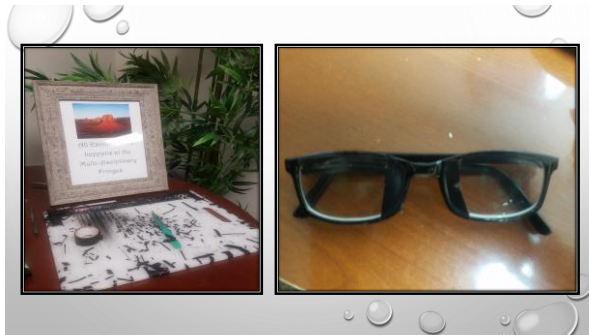
**QUICK AND DIRTY**

PRISM TAPING- ¼ PRISM DIOPTR = 1MM TAPE

X 1 BI 1 BU OD .5 BO 1 BU OS

- 4MM BI 4 MM BU OD 2 MM BO 4 MM BU OS

WHEN AND WHY



**"It's only after  
you've stepped  
outside your  
comfort zone  
that you begin  
to change,  
grow, and  
transform."**

**Roy T. Bennett**

### ***VEP***

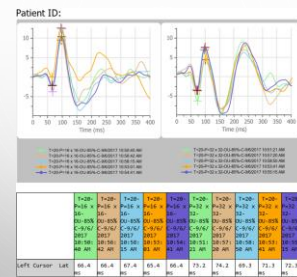
**YOU WILL PRESCRIBE WITH ONLY ABOUT 60% EFFICIENCY *WITHOUT* VEP DATA.**

**VEP FROM F/U.**

**COMPLETE EXAM DONE AND VEP USED TO DETERMINE BASE IN PRISM POWER AND WHETHER OR NOT BINASALS ARE NEEDED.**

**1 BI OU NO BINASALS**

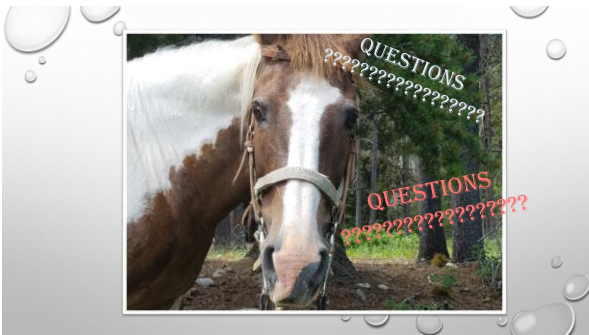
**GAIT AND BALANCE EVEN AND STEADY**







Persons who are not treated for **PTVS and VMSS** can experience this syndrome for many years following a neurological event, with continual increase in symptomology.



**THANK YOU**

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ICAREPLACE@YAHOO.COM

