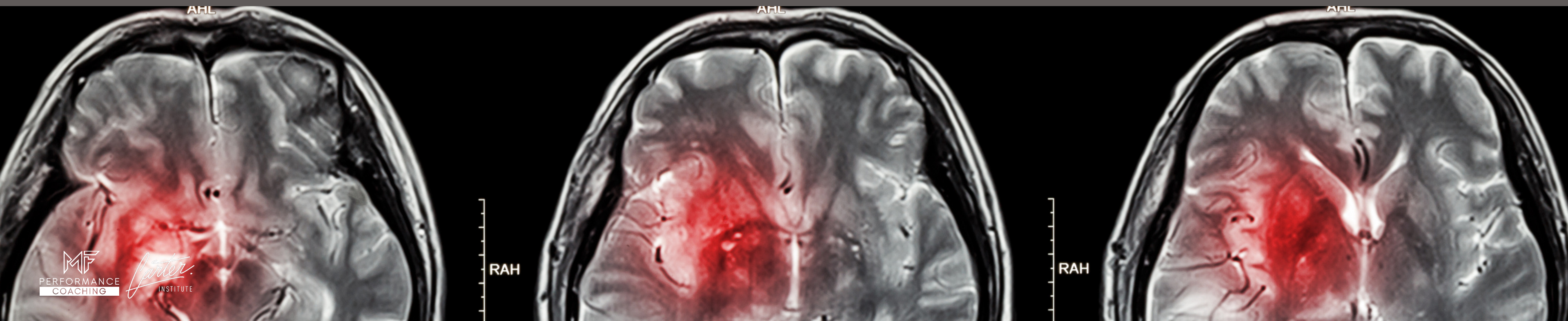# Applied Functional Neurology

Module 1: Introduction to Functional Neurology

The information discussed within is for educational purposes and is not intended to treat, diagnose, cure or slander.

Please consult your registered health professional if you have any concerns about your wellbeing.

Looking at the nervous system can be unnerving...

But it is the window into the energetic body

Which opens up possibilities that you likely have never considered before

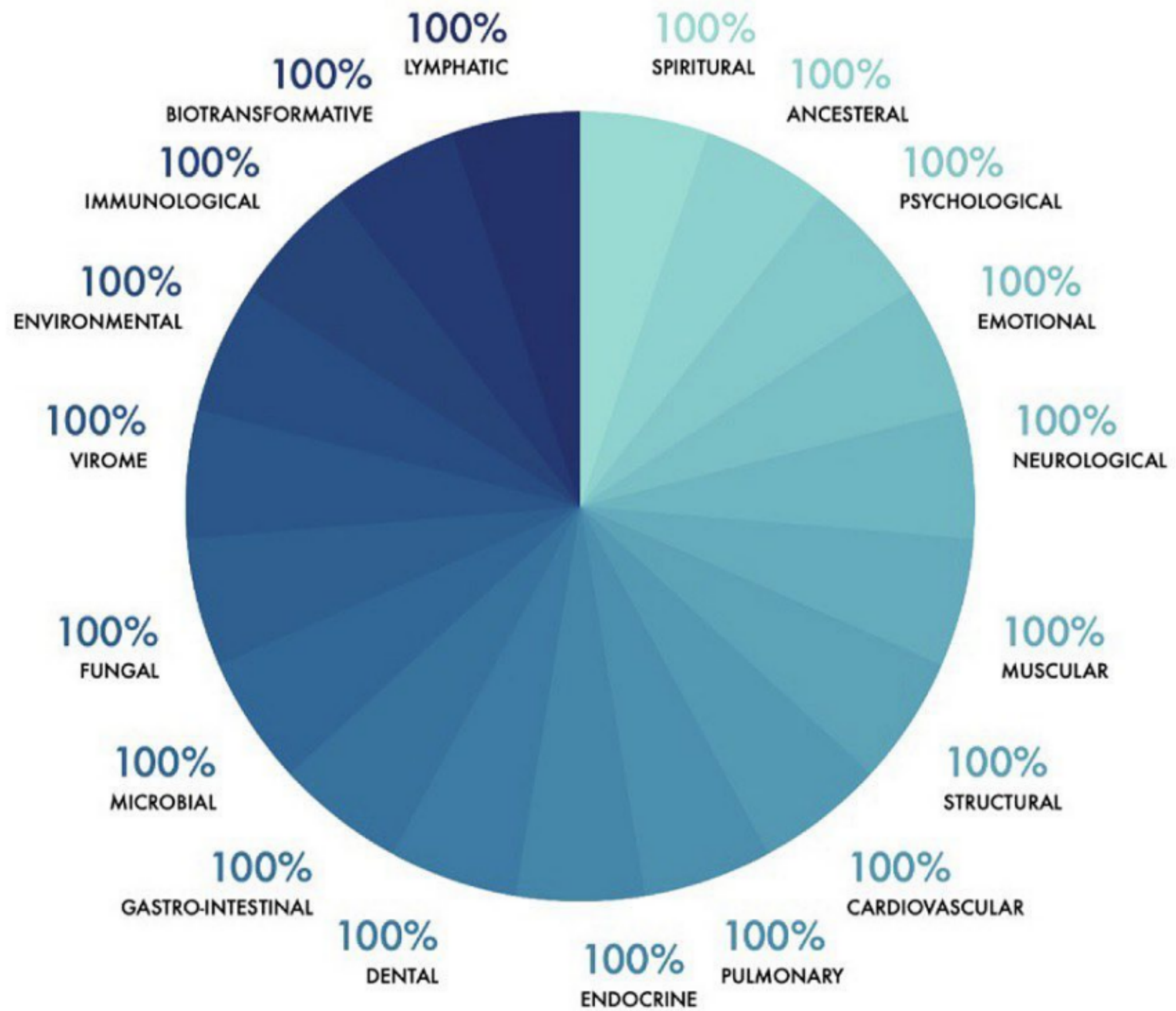# Who here has played with brains before?

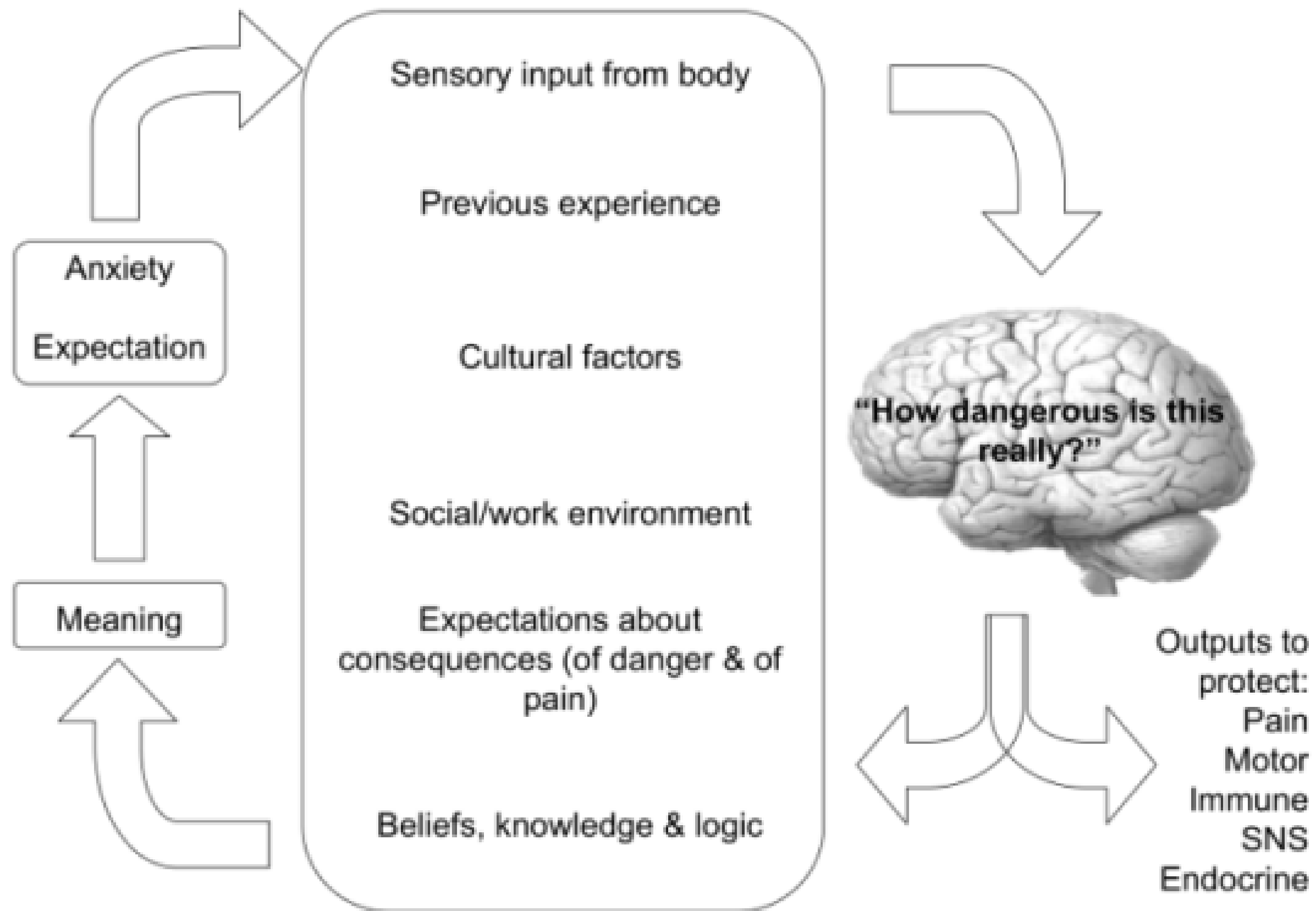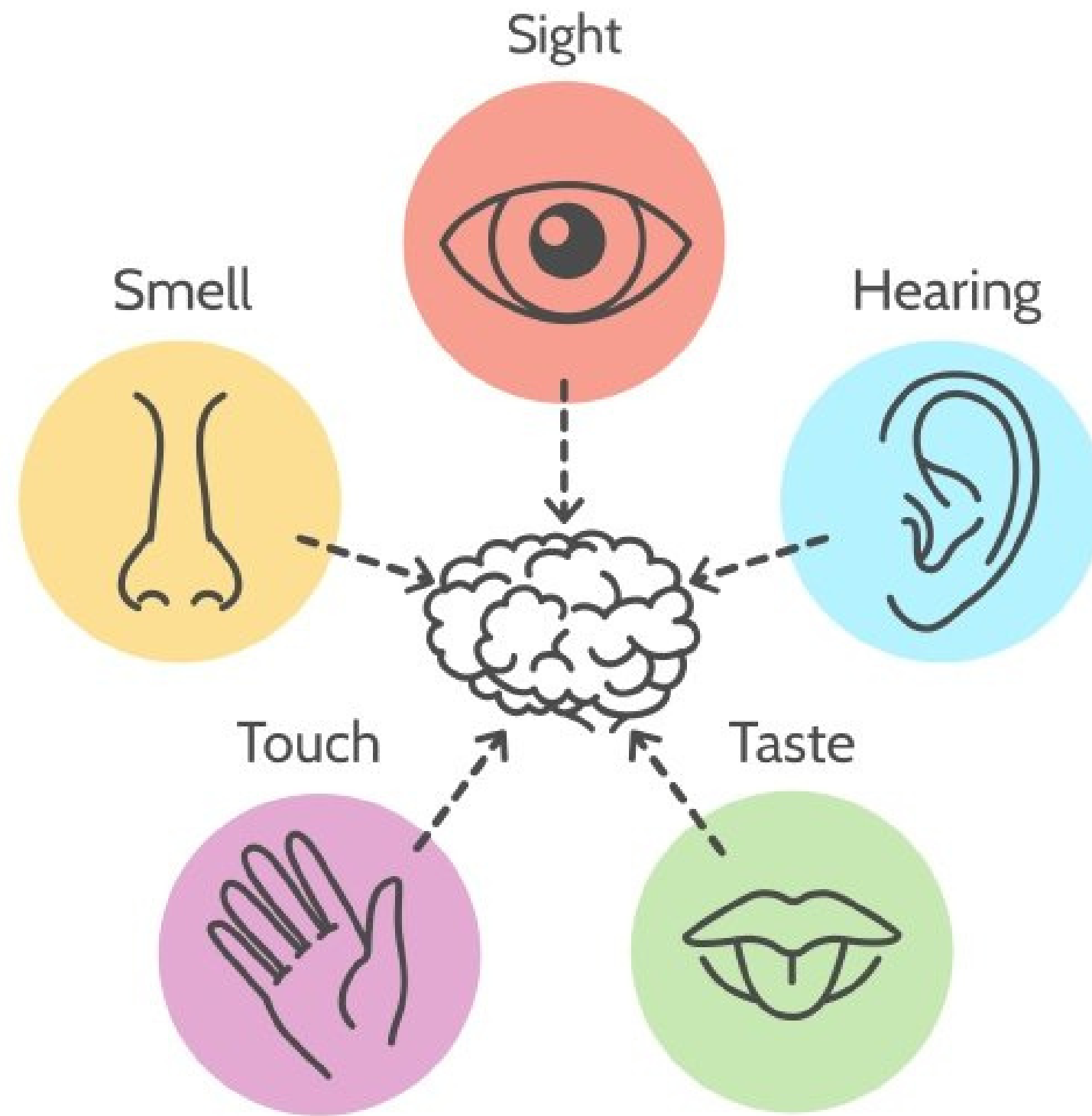# All of these spokes are inputs and potential threats

Lateral Canal

Anterior Canal

Posterior Canal

Cochlea

Stapes

Incus

Utricle

Malleus

VESTIBULAR SYSTEM

Static equilibrium

Cupula

Sensory nerve fibers

Hair cell

Otoliths

Otolithic membrane

Hair cell

Nerve fibers

Dynamic equilibrium
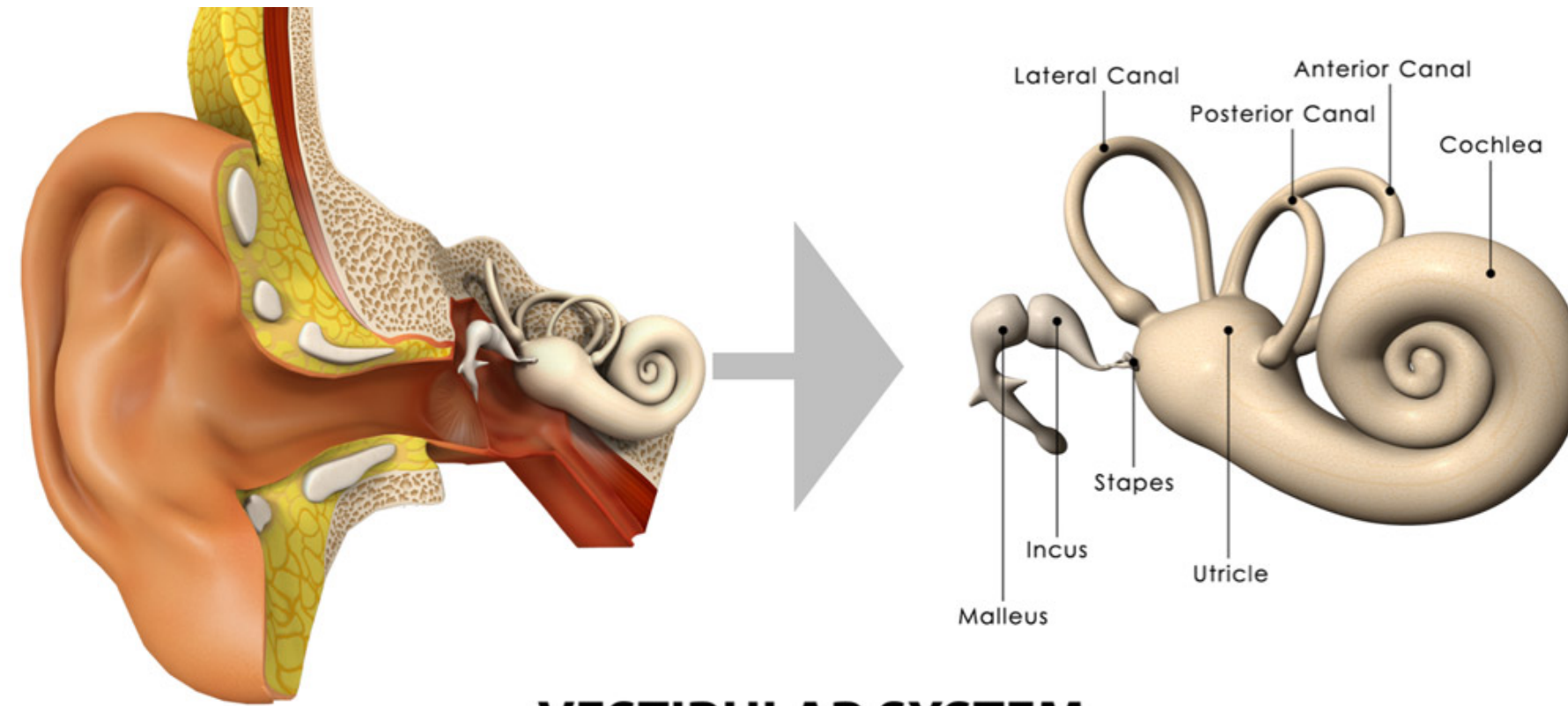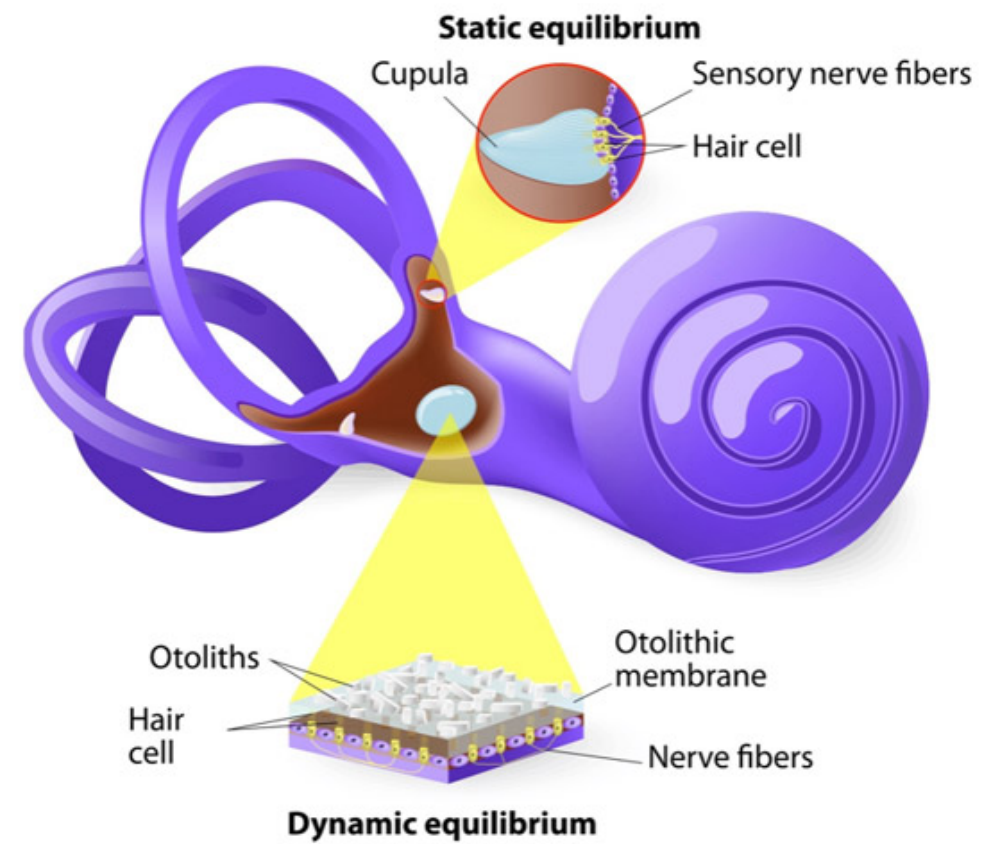
To make a change in the brain we need two things:
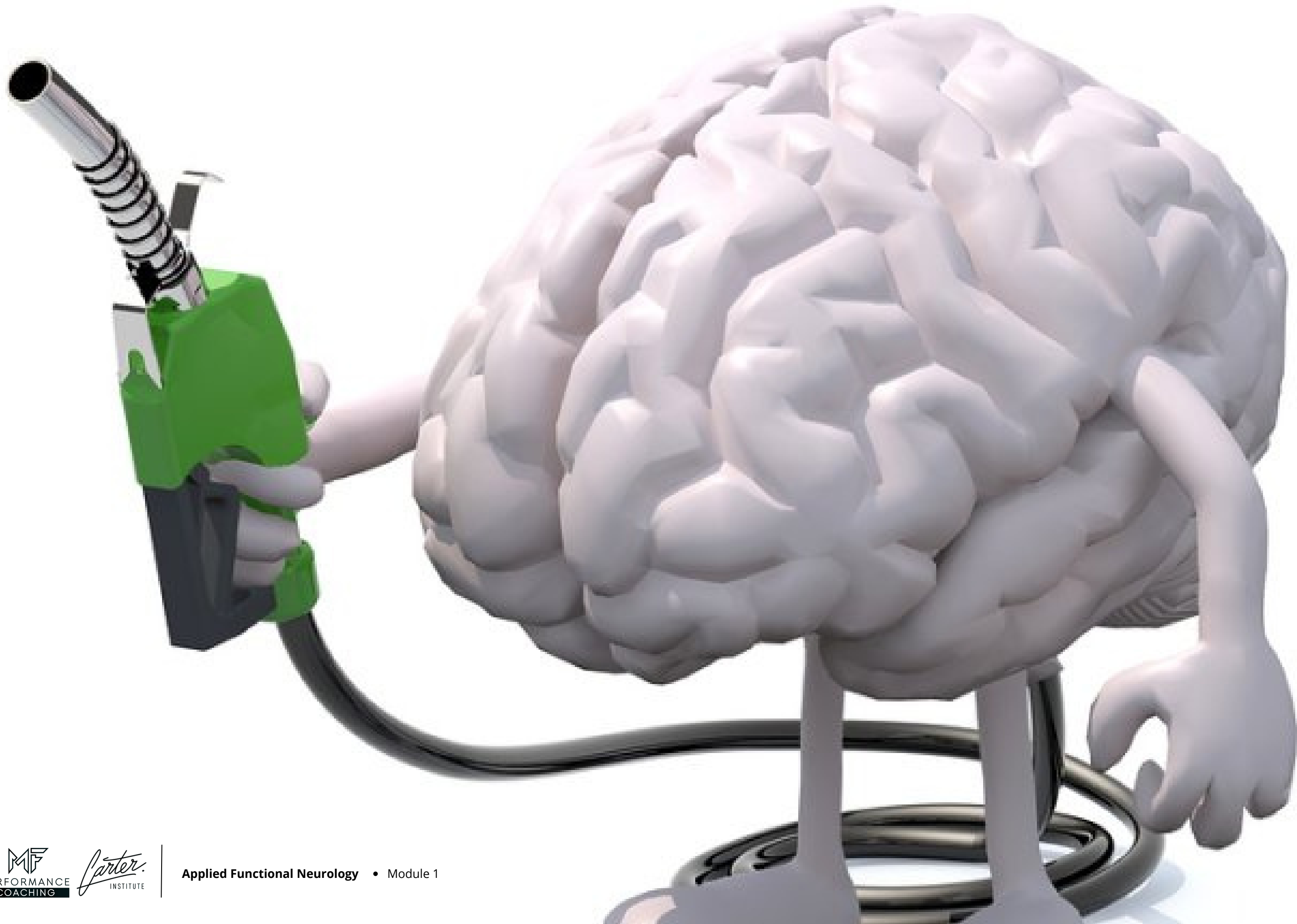
Fuel	Activation
Glucose	Movement
Oxygen	Learning

These are the tests we're going to go into:

- **Threat assessments**
- **Gaze fixations**
- **Vestibular canals**

Threat assessments:

- **Global response to stimulus**
- **Can use any relevant measure as assessment**
- **Can assess any neural input**
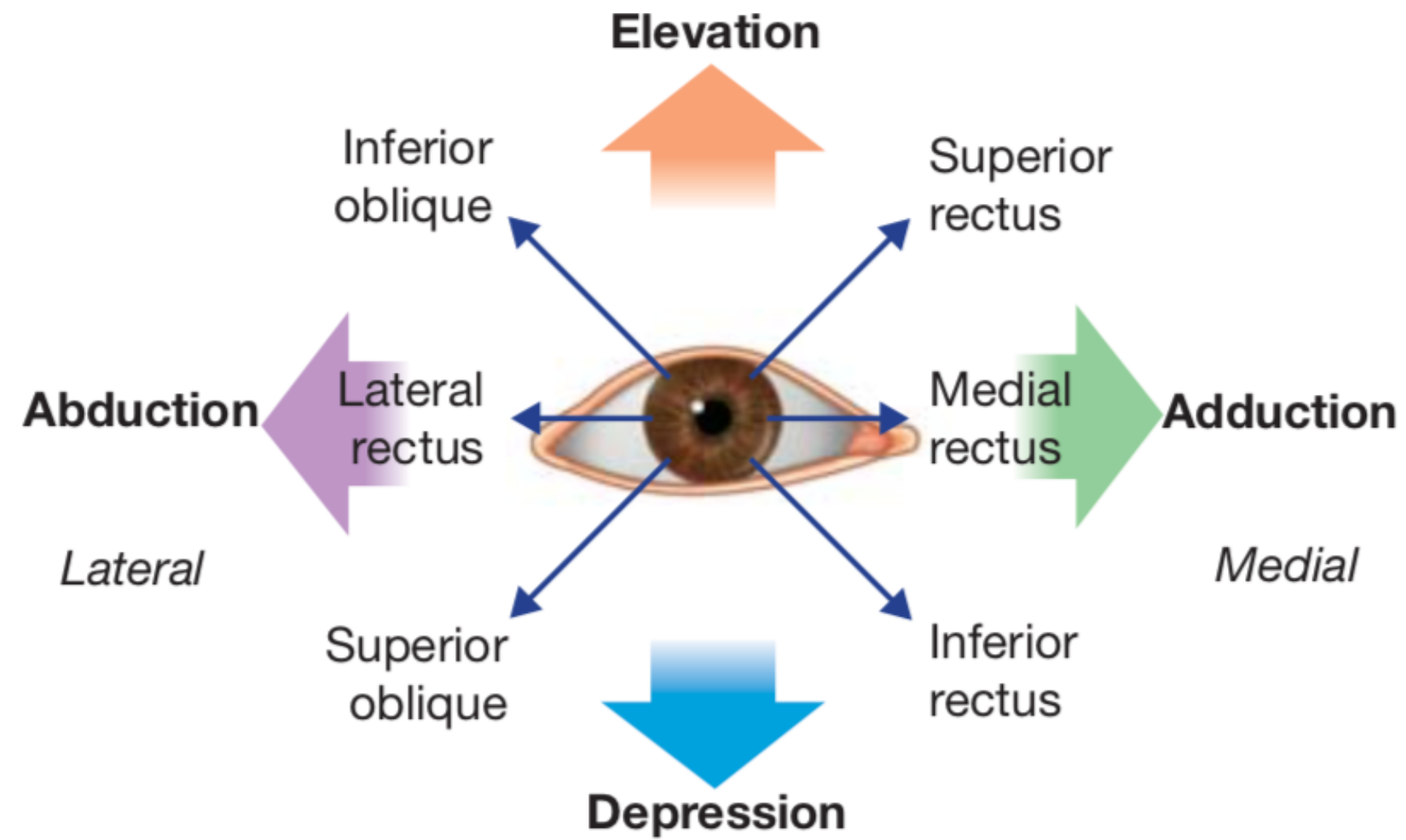- **Instant feedback**
- **High accuracy**

What to look for:

Gaze fixations:

- **Vision sets the basis for movement**
- **80% of the time we're fixating gaze**
- **Gaze fixations lay the foundations for all other eye movements**
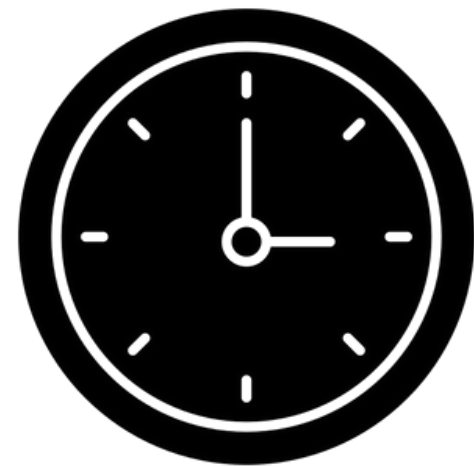- **Low hanging fruit of threatening input**

Extension

Elevation

Inferior oblique   Superior rectus

Right rotation & extension, left flexion   Abduction   Lateral rectus   Medial rectus   Adduction   **Left rotation & extension, right flexion**

Lateral   *Medial*

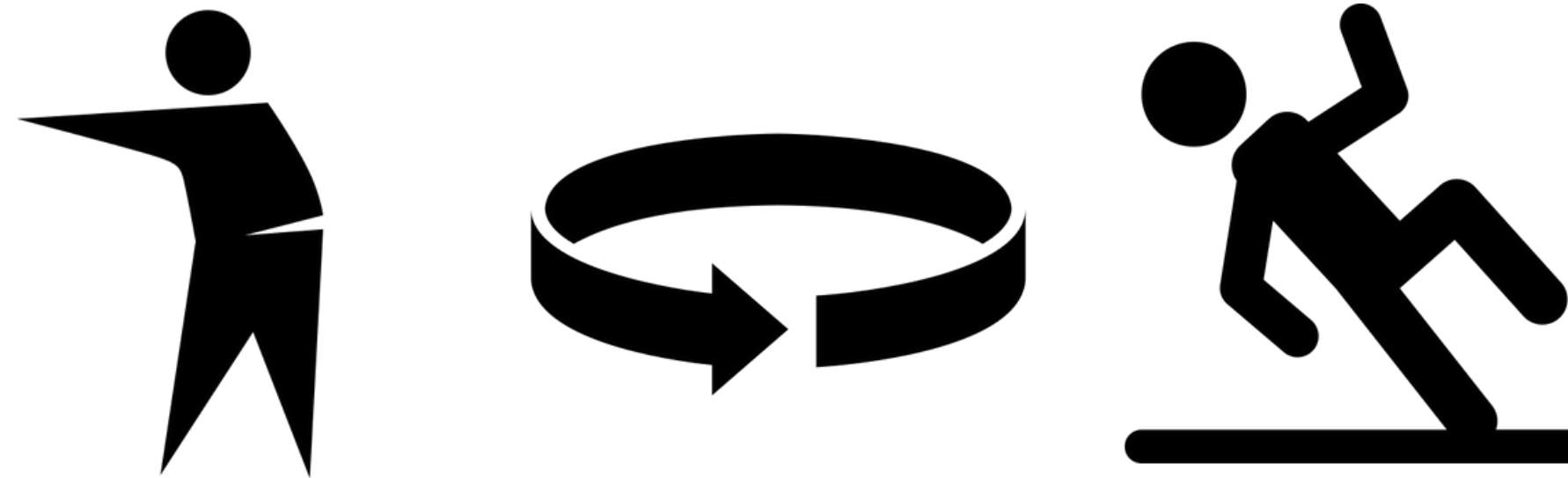Superior oblique   Inferior rectus

Depression

Flexion

What to look for:

Vestibular canals:

- **Linked to vision (VOR)**
- **How you respond to gravity**
- **Dysfunction = high threat**
- **Where am I going?**
- **Which way is up?**
- **Controls spinal extensor tone**

What to look for:

Rehab Drills:

- **1-3 drills**
- **What was threatening?**
- **Did you have to regress?**
- **Highest possible frequency**
- **1-2 reps**
- **Not near performance tasks**

Performance Drills

- **2-4 drills**
- **What made you better**
- **Times of importance**
- **Warm ups**
- **Resets**