

## Why Zebras are Not Horses



People with **Hypermobility Spectrum Disorder** and **Ehlers-Danlos Syndrome (HSD/EDS)** refer to themselves as ‘zebras’ in response to what most health care providers have been taught: “when you hear hoofbeats, look for horses, not zebras.” While common conditions (horses) are more common, less common conditions like HSD/EDS (zebras) also exist. Here are 11 ways in which zebras are not horses.

- 1. Zebras have fragile connective tissue throughout their bodies, and these tissues can be damaged by lighter stresses than needed to damage horses.**
  - ⇒ Figure out how zebras are overstressing their tissues, and recognize that no stress is too minor to cause damage. Gripping a pencil can sublux fingers and the weight of the arm can sublux shoulders.
- 2. Pain neuroscience teaches that chronic pain is often perpetuated by neuroplasticity and neural sensitization rather than tissue damage. While zebras may have neural sensitization amplifying their pain, they also have persistent “issues with their tissues” that cause ongoing nociceptive pain.**
  - ⇒ Don’t tell zebras to push through their pain; although pushing through is often appropriate for horses with chronic pain, it will cause more tissue damage in zebras. Strategies, such as relaxation, to calm a sensitive nervous system may still be appropriate, but are not sufficient on without addressing nociceptive pain.
- 3. Zebras have poor proprioception, so they don’t know where their body parts are.**
  - ⇒ Zebras need more external feedback (e.g., visual, tactile, cutaneous) to follow instructions like “don’t hyperextend your knees” or “correct your posture.”
- 4. Zebras are often clumsy and have poor motor control, and will often move incorrectly.**
  - ⇒ Zebras need more monitoring and cuing for motor control, quality of movement when doing ADL and exercises. Help zebras recognize and improve improper body mechanics.
- 5. Zebras often start with subluxed joints, whose alignment should be restored before stressing with exercise.**
  - ⇒ For example, shoulder strengthening should be done only once the humerus is properly aligned in the glenoid to avoid 2<sup>o</sup> impingement.
- 6. Many zebras start exercising 6 weeks more deconditioned than a typical deconditioned horse.**
  - ⇒ It may take 4-6 weeks before zebras are capable of doing an ‘easy’ exercise correctly. “Start low, go slow”
- 7. Zebras have issues with multiple connective tissues, and seldom have ‘just’ a musculoskeletal problem.**
  - ⇒ Dysautonomia, GI problems, immune sensitivity, ‘brain fog’ may all interfere with tolerance to PT.
- 8. Zebras often have dysautonomia (e.g., POTS) that causes severe fatigue and limited exercise tolerance.**
  - ⇒ Zebras might be unable to do upright exercise (especially cardio) until dysautonomia has been addressed. They may need to start exercising horizontally, and may benefit from vascular pumping exercises (e.g., ankle pumps, quad/glute sets). They might only tolerate 2 minutes of cardio to start.
- 9. Zebras often have Mast Cell Activation (MCAS), causing increased inflammation, GI, skin, and allergy problems.**
  - ⇒ Zebras may develop inflammation more easily than horses, and may struggle with other systemic inflammatory issues involving multiple organ systems.
- 10. While zebras have loose joints, they may have tight muscles.** However, if they try to stretch a tight muscle, they are likely to stretch what is already stretchiest (i.e., the joint), increasing the imbalance.
  - ⇒ It is critical for zebras to stabilize loose joints when stretching tight muscles, and zebras might not have the motor control or strength to stabilize actively.
- 11. Zebras have often been misdiagnosed, misunderstood, and mismanaged for years.** Zebras experience frequent iatrogenic injuries from well-intentioned PTs who do not appreciate the importance of items 1-10, above.
  - ⇒ Don’t treat zebras like whining hypochondriacs – they really do have “issues with their tissues.”