

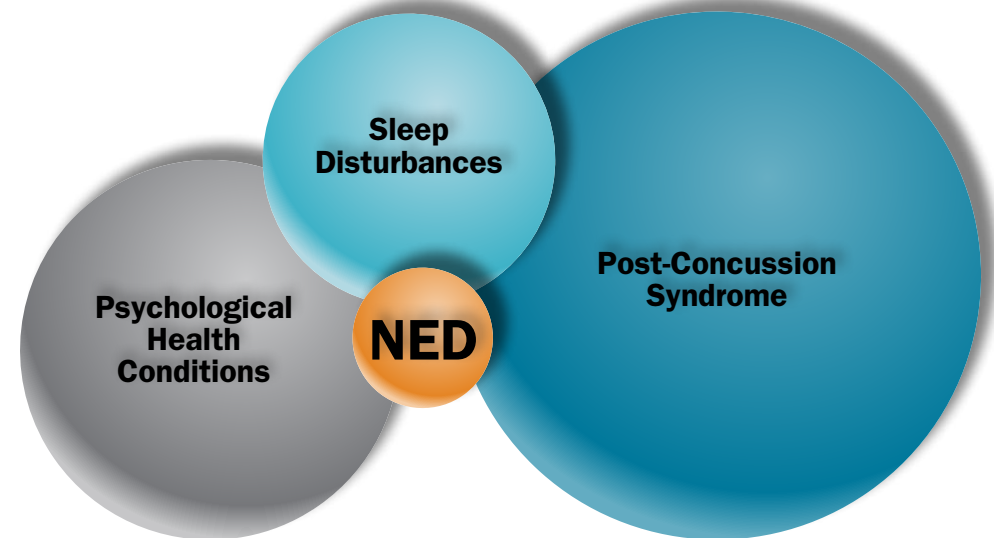
What You Should Know About Neuroendocrine Dysfunction After mTBI

- Neuroendocrine dysfunction (NED) or post-traumatic hypopituitarism (PTHP) can occur in a small subset of patients following traumatic brain injury (TBI) and may contribute to chronic symptomatology.
- Prevalence of NED after concussion/mTBI alone is not well-defined by the literature.
- **Risk factors for NED include: repetitive low-level blast exposure, blast-related TBI, and a history of multiple TBIs.**
- Pituitary disorders occurring after TBI include:
 - Growth hormone deficiency (GHD)
 - Adrenal insufficiency (as a result of disrupted adrenocorticotrophic hormone secretion)
 - Hypogonadism
 - Hypothyroidism
 - Hyperprolactinemia
 - Diabetes Insipidus (excessive thirst and urination)

Screening and Treatment Considerations

- Screening involves both standard and dynamic laboratory testing that **should be ordered and interpreted by a specialty provider** (e.g., TBI provider, endocrinologist, neurologist).
- NED screening is usually not indicated within the first 3 months after mTBI.
- Limited evidence exists to support treatment of NED due to mTBI.
- Abuse potential and unknown side effects are risks of using hormone replacement therapies in the chronic mTBI population.

Conditions With Overlapping Symptoms



Symptoms of NED

- Fatigue
- Lethargy
- Generalized weakness
- Low mood
- Difficulty concentrating
- Change in appetite
- Unexplained weight loss or gain
- Dizziness (with hypotension, especially postural)
- Males: sexual dysfunction, reduced facial hair
- Females: oligo-/amenorrhea, reduced axillary or pubic hair

Patients with chronic symptoms (>3 months), risk factors for NED, and functional limitations, should be referred to a TBI clinic or specialty provider.

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Information for the Primary Care Manager

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Acknowledgments

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TBICoE Core Working Group:

Amanda Gano, MPH, MS, PA-C
Joanne Gold, PharmD, BCGP
Rachael Lardieri, MS, OTR/L, CBIS
Donald Marion, MD, MSc
Gary McKinney, DHSc, CBIS, CPT
Keith Stuessi, MD

End- User Working Group:

CDR Katherine Demers, DMSc, PA-C, CBIS
Carissa Haney, DNP, APRN-BC
Maj Korey B. Kasper, MD, CAQSM
1LT Amy Ramirez, PA-C, MPAS
Maj Steven Trigg, MD
LTC Nicole O. Vietor, MD