



Fatigue and Sleep November 17, 2022

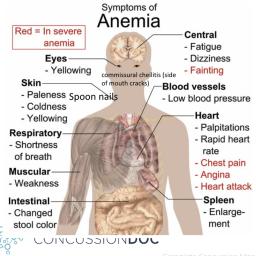
In this seminar, Dr. Hrkal goes over fatigue and sleep with PCS. He discusses

- Most common symptoms
- Why fatigue is common with PCS
- Mitochondrial dysfunction
- Asses your fatigue, what kind of fatigue do you have?
- Foundational brain support
- Importance of Iron, B12, food
- Circadian Rhythm
- Sleep support
- Medications that can cause fatigue
- Hypopituitarism & hormone imbalances
- Hormones for testing (image below)
- Chronic Fatigue Syndrom

You can find the letter for your health team on what to do for blood tests in: Resource - Document - Blood Testing Letters for Doctors

Image: Symptoms of Anemia

Most Common Symptoms



- Less common but clinically relevant sx:
 - Frequent injuries
 - Low immunity
 - Hypothyroidism
 - impaired myelin generation
 - tinnitus
 - *Irritability/depression
 - *Learning disability/poor cognition
 - *Restless legs syndrome (RLS), restless sleep disorder (kids)

*Clinical Pearl: iron is a key co-factor in dopamine production causing depression and movement disorders (i.e. RLS). This can be present in non-anemic low ferritin cases.

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Hormones for testing

Hormone	Testing
Growth Hormone	IGF-1 2 glucagon stim test*
Thyroid	TSH, Free T4 🛽 Free T3, Anti TPO
Adrenal	AM cortisol, DHEAs 2 Dried urinary and/or saliva testing**
Ovarian/testes (fatigue worse during PMS period)	Progesterone (females), Estradiol (females), total testosterone, prolactin

^{*}requires endocrinologist

Full List: Morning cortisol, DHEAs, TSH, Free T4, Prolactin, FSH, LH, Progesterone (females), Estradiol (females), total testosterone (males) vitamin D, B12, CRP, HA1C, fasting glucose, ferritin, CBC, IGF-1

^{**}requires ND, func MD