Don't Forget Hormones...

Forgetfulness and cognitive decline are some of the most commonly reported symptoms of menopause. In fact, peri-menopausal women were 1.4 times as likely to report forgetfulness compared to pre-menopausal women, according to the Study of Women's Health Across the Nation (SWAN), and this was independent of additional factors including reported stress. There are a number of mechanisms through which changes in hormones affect brain function and memory.

Estrogens have direct effects in the brain by increasing the number of synapses in the hippocampus, the region of the brain where transferring short term memories to long term memories is thought to occur. Estrogen and progesterone both help to protect the brain from exogenous and endogenous toxins including glutamate-induced excitotoxicity, and progesterone is a potent anti-inflammatory agent in the central nervous system, working to rebuild the blood-brain barrier, reduce edema and down-regulate the inflammatory cascade in the event of physical or ischemic trauma.

Another important mechanism through which hormones enhance memory is by increasing acetylcholine activity. Acetylcholine is an important neurotransmitter involved in learning and encoding new memories and its production is greatly decreased in conditions of compromised memory including Alzheimer's disease. Estrogen increases the activity of the enzyme choline-acetyl transferase, which stimulates the synthesis of acetylcholine.

Maintaining optimal hormone levels throughout the menopausal transition can not only aide in the management of classically "menopausal symptoms" such as hot flashes and night sweats, but can prevent and treat memory loss and protect the brain from chemical and physical assault. As always, the correct balance of hormones is important, so remember to test, not guess. Baseline salivary hormone and urinary neurotransmitter levels is the best first step toward protecting and enhancing the memories of your peri-menopausal and menopausal patients. Test Now. Treat Right.

Resources


Upcoming events

Labrix Advanced Workshop
February 1-2, 2014
Register Here

Neurotransmitter Primer Webinar
August 22, 2013 at 10am PST
Register Here