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*Forensic, Child, Adolescent, and Adult Psychiatry*

*INDIVIDUAL & FAMILY PSYCHOPHARMACOLOGIC TREATMENT OF:*

- MOOD AND ANXIETY DISORDERS • OBSESSIVE-COMPULSIVE DISORDER
- PERVASIVE DEVELOPMENTAL DISORDERS/AUTISM
- ATTENTION DEFICIT DISORDER • MENTAL RETARDATION • TOURETTE'S DISORDER
- TRAUMATIC PSYCHIATRY • TRAUMATIC BRAIN INJURY
- POST-TRAUMATIC STRESS DISORDER • CHRONIC PAIN MANAGEMENT

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**DEPRESSION: NEUROTRANSMITTER MECHANISM OF MEMORY DEFICIT**

It is well-known the persons with depression have deficits in memory. Recent research in biologic psychiatry has noted that increased cortisol acting through the activating neurotransmitter NMDA and glutamate causes damage to hippocampal neurons.

This is important since the hippocampal area of the inferior temporal located in the inferior temporal gyrus of the temporal lobe is involved in new memory registration and storage.

Therefore, depression/stress-induced increased cortisol levels may play a role in the pathophysiology of memory deficits seen in depression and other stress-induced states such as Post-Traumatic Stress Disorder and Traumatic Brain Injury.

Therefore, with those patients whom you are treating and who have a current history of depression, it would be beneficial to consider adding cortisol levels to your evaluation, since elevated cortisol levels are associated with hippocampal damage which, in turn, may interfere with memory. There is also evidence that NMD-A and glutamate are elevated with stress-associated hyper-cortisol anemia.

In addition, in your male patients over 40 years of age whom you are treating and who have a current history of depression, it would be beneficial to add serum testosterone levels in your evaluation, since this may cause refractory problems in depressed persons with or without physical injuries.

If you ever have any problem with payment for these added tests, you can use the following references: Nature Neuroscience, May 1998: 1:69-73; and Journal Watch in Psychiatry, Vol. 4, No. 8, August 1998, published by the Massachusetts Medical Society.