## CBD and ImmunoNeuroEndocrine Stress

There are ever more studies showing that cannabidiol (CBD) extracted from Hemp works wonders on a broad array of immunological, psychological and neurological conditions/symptoms.

CBD has become an Alternative Medicine Man & Nature Cure Industry "Flavor of the Month". But you must be extremely cautious in recommending CBD supplements. The major concern about CBD oil products available without prescription is that there is zero quality control.

- A study of CBD oil products on the market shows that almost half of them have far less CBD oil than claimed on the label, and about 1 in 5 have much more CBD oil than claimed on the label. --- There are no labeling requirements nor quality control requirements for CBD oil products at this point --- so --- until the FDA intervenes, anyone can produce a product labeled "CBD oil" and put anything in it he wants and get away with it.
- A study of CBD oil products on the market shows that 1 in 5 of them contain THC --- the narcotic chemical in marijuana. THC is responsible for all the central nervous system depressing effects of marijuana. A major concern here is that it actually makes seizures and anxiety worse, and treatment of seizures and anxiety are the main reasons why many people are using CBD oil.

Are there other concerns regarding the safety and efficacy of CBD supplementation?

- 10% of the people taking CBD show an elevation of liver enzymes --- indicating toxicity and damage to the liver.
- There are still not enough controlled studies on human use of CBD --- with the exception of using it to treat seizures. All the other health benefits claimed for CBD oil have limited evidence supporting them. The research is promising, but not yet conclusive.
- Studies show that the placebo effect with CBD oil use is huge.

One comprehensive study completed in 2015 and published in Neurotherapeutics illustrates clearly the broad applicability of CBD. Quoting from the Abstract of that study --- " .... evidence strongly supports CBD as a treatment for Generalized Anxiety Disorder, Panic Disorder, Social Anxiety Disorder, Obsessive-Compulsive Disorder, and Post-Traumatic Stress Disorder.

(Note: CBD extracted and concentrated from Hemp has zero THC --- the psychoactive component of marijuana responsible for the "high" sought by recreational users.)

One interesting aspect of supplementing with CBD is that it can be actually considered "natural". Of course we understand that "natural" is a garbage term thrown around by the heath food industry and nature cure doctors. But in this case, it is genuine and valid as regards CBD. A brief explanation of CBD's "naturalness" ....

----- Our bodies actually produce cannabinoids. And both our brain and nervous system as well as our immune system have cannabinoid receptors that respond to the cannabinoids our own body produces, and respond to cannabinoids in our foods. In other words, CBD and other cannabinoids are not only natural, but are extremely essential metabolites to keep our nervous systems and immune system functioning optimally.

Of particular interest to you when considering CBD as an alternative to SSRIs is that CBD addresses the brain center that is particularly controlled by SSRIs --- the 5-HT system. There is an article in the Literature published in 2017 in Current Neuropharmacology that specifically addresses CBD use in Panic Disorder. But that study is broad enough in scope that it explains the many brain centers that are favorably influenced by CBD. Unlike the SSRIs that totally derange the tryptophan-serotonin-niacin metabolic pathways, CBD normalizes that system without distorting it as SSRIs do. --- And --- unlike SSRIs, there are no major side-effects from CBD --- and absolutely none of the withdrawal symptoms that can be suffered by SSRI users for months after they attempt to get off those ugly drugs. [There are several Articles on your NUTRI-SPEC website describing the evils of SSRIs as they "hijack" the brain.]

The most significant side-effect from CBD is, since it is a CNS depressant, some somnolence and lethargy, and in some cases a bit of depression. But those side-effects are generally found only in those who are taking huge doses of the CBD drug that is approved for seizures. One other concern (mentioned above) is that in large doses over an extended period of time it can cause liver damage.

Using doses only slightly above physiological doses, and if taken at bedtime, CBD is almost entirely free of side-effects. In fact, as much as 300 mg daily of CBD has been taken for months by human volunteers with minimal and entirely reversible side effects. --- Very encouraging.