

**Selective Serotonin Reuptake Inhibitors:
The damaging, pro-inflammatory, pro-aging effects of
SSRI drugs and of Serotonin**

Neurological

- People who use SSRI drugs are five times as likely to commit suicide than if they took no medication at all.
- These drugs can cause helplessness, apathy, aggression, and sedation.
- Both SSRIs and SSNRIs increase the risk of pushing the patient into full-blown Bipolar Disease (manic/depressive), with the incidence increased by 1/3. [Study published in BMJ.] ----- Since SSRIs became widely (uncontrollably) prescribed in the early 1990s, the incidence of Bipolar Disease has skyrocketed --- nearly doubling in adults and multiplying by 40 times in children. Not all that increase in Bipolar Disorder is due to SSRI prescription, but, as stated above, the incidence of Bipolar Disorder is approximately 33% higher after starting an SSRI.
- Even short-term use of SSRIs in children and adolescents greatly increases the risk of suicide. Some studies show the incidence of suicidal ideation and suicidal behavior increases by 80%, and the incidence of agitation and hostility increases by 130%. The statistically significant increase in suicide is also shown in young adults up to age 25.
- The amount of serotonin in the brain increases with old age.
- Decreasing serotonin improves learning and alertness, while increased serotonin impairs learning.
- Serotonin interferes with slow-wave sleep, creating a situation resembling that of depression or old age.
- Migraine headaches are often associated with excess serotonin.
- Serotonin elevating drugs are prescribed for stress related emotional conditions, yet the evidence is that serotonin is already too high in people suffering from emotional stress. This is because stress liberates free fatty acids from storage, which, in turn, increases the uptake of tryptophan into the brain, increasing the formation of serotonin.

- High Serotonin is associated with some forms of panic reactions.
- Excess Serotonin is associated with the development of learned helplessness.
- SSRIs can worsen Parkinson's Disease.
- Serotonin is elevated in autistic children and their relatives.
- Serotonin is elevated in Huntington's Chorea and other neurological diseases.
- There is excess serotonin in the hippocampal formation of the brain in some schizophrenic patients.
- Hans Selye showed that the injection of serotonin causes muscular dystrophy. Subsequent studies suggest that serotonin excess is involved in both muscular and nervous dystrophy or degeneration.

Hormonal

- Women who take these drugs are more than 7 times as likely to develop breast cancer.
- Estrogen (hormone replacement therapy, or birth control pills) increases the damaging actions of serotonin.
- High serotonin has been documented in preeclampsia, toxemia of pregnancy, eclampsia, and post partum depression.
- Both serotonin and melatonin are potent inhibitors of progesterone release.
- Serotonin increases the secretion of the stress hormone prolactin, which is known to be elevated in Fibromyalgia.
- Serotonin inhibits thyroid function. --- Low thyroid function increases serotonin, as does excess cortisol. --- Note the Vicious Cycle --- serotonin inhibiting the thyroid, but low thyroid increasing serotonin, which then would further inhibit thyroid
- Serotonin increases the secretion of the stress hormones ACTH and cortisol (which is probably a factor influencing the rate of aging and contributes to the depression associated with aging).

- Serotonin is like estrogen in its association with aggression. A record of violence has clearly been associated with above average blood serotonin levels. Note that darkness stimulates both aggression and eating.
- Serotonin is a precursor of melatonin. Melatonin lowers body temperature and decreases alertness, and also suppresses thyroid and progesterone. Women who are depressed have been found to have higher daytime melatonin levels. In animal studies, supplementation with melatonin accelerates the development of tumors.
- In animal studies, decreasing excess serotonin raises the testosterone in male animals. Drugs that inhibit serotonin synthesis tremendously increase libido.
- Women given SSRIs during menopause have their risk of Osteoporosis related fractures increased by 76% in the first year alone. After 2 years, the risk is 73% higher than in women not taking SSRIs. Over 5 years, women on SSRIs are up against a 67% higher risk of bone breaks than women who have never taken SSRI drugs. [Study published in Injury Prevention.]
- SSRIs cause erectile dysfunction in men, and in both men and women cause decreased libido and failure to achieve orgasm. (Ruining sexual function may be the most common reason people stop these drugs.) Regrettably, sexual dysfunction may persist even after getting off an SSRI.

Metabolic

- Serotonin lowers body temperature and decreases the metabolic rate.
- Serotonin activates glycolysis and increases the formation of lactic acid, which interferes with cellular energy production.
- Overdose with SSRI drugs can cause a sometimes fatal reaction called “serotonin syndrome.” This consists of tremors, altered consciousness, poor coordination, cardiovascular disturbances, and seizures.
- The popular herbal “antidepressant” St. John’s Wort has been reported to cause “serotonin syndrome.”

- The ability to convert blood sugar into energy is impaired by serotonin. Several drugs with anti-serotonin activity are now being used to treat diabetes and its complications such as high blood pressure, obesity, and foot ulcers.
- Symptoms of Seasonal Affective Disorder including depression, pain sensitivity such as fibromyalgia, and carbohydrate craving are all increased by both serotonin and melatonin.
- Serotonin causes edema, histamine reactions, constriction of the bronchial tubes (asthma), suppression of the immune system, and joint swelling.
- Serotonin interferes with muscle mitochondria, and thus is associated with the pain sensitivity seen in Fibromyalgia.

Vascular

- Serotonin causes high blood pressure, spasms of the blood vessels, and promotes clotting.
- Serotonin contributes to high blood pressure by stimulating both the production of cortisol and aldosterone. It also activates aldosterone secretion by the renin-angiotensin system. Angiotensin is an important promoter of inflammation and contributes to the degeneration of blood vessels with aging and stress. It also can promote estrogen production.
- Serotonin stimulates cell division in connective tissues and thus contributes to the age-related thickening and fibrotic changes of soft tissues that impair organ function and thicken blood vessels.
- SSRIs can interfere with cardiac function by lengthening the QT interval.
- SSRIs potentiate the effect of anti-coagulant drugs, and even Aspirin --- thus causing significant increased risk of both stomach and intestinal bleeding and brain hemorrhage.

Diet/Intestinal

- Protein deficiency produces an inflammatory state that involves extreme serotonin dominance.

- Stress or malnutrition either prenatally or in infancy, leads to extreme serotonin dominance in adulthood.
- Polyunsaturated oils in the diet promote the damaging effects of serotonin. In contrast, short and medium chained saturated fatty acids have anti-serotonin activity.

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