



Meditation and Our Body Chemistry

GABA

People who regularly meditate have considerably increased levels of the neurotransmitter GABA (gamma aminobutyric acid), which is best known *for stabilizing mood disorders*. Anxiety, tension, insomnia, and epilepsy are believed to be due to the failure to produce adequate levels of GABA. In a study at Yale University, people with panic disorder were found to have 22% less GABA than people without panic disorder. Addicts, including those addicted to alcohol, drugs, tobacco, caffeine, food, gambling, and even shopping, all have one thing in common: not enough GABA.

DHEA

Meditation provides a dramatic boost in DHEA hormone levels. We now know that low levels of DHEA (dehydroepiandrosterone) are strongly associated with the risk of heart attack, diabetes, cancer, osteoporosis, rheumatoid arthritis, obesity, and chronic fatigue. On the positive side, DHEA *enhances memory, alleviates depression, and causes a remarkable improvement in a person's sense of psychological and physical well-being*. It also provides strong support to our immune system. Many scientists are convinced that a deficiency in the DHEA hormone is what contributes to the collapse of our immune systems during old age.

Melatonin

People who meditate are able to maintain healthy levels of melatonin. Melatonin is a hormone manufactured in the brain by the pineal gland, from the amino acid tryptophan. Levels of melatonin in the blood peak before bedtime and its function *is to create restful sleep*. It is also a powerful *antioxidant*. Stress, however, significantly lowers melatonin levels.

Serotonin

Meditation also increases the production of serotonin within our brains. Serotonin is a main neurotransmitter and has profound influences over our *mood and behavior*. Depleted serotonin levels are directly linked to depression, obesity, insomnia, narcolepsy, sleep apnea, migraine headaches, premenstrual syndrome, and fibromyalgia. In treating anxiety and depression-related disorders, drugs such as Prozac, Paxil, and Zoloft help to restore healthy levels of serotonin. But why put yourself through the adverse side effects of these costly medications when you can



achieve the same results by a daily practice (even 10 minutes/d) of conscious breathing through mindfulness?

Endorphins

Endorphins are a category of opiate like neurotransmitters that the body uses as an internal pain killer. These compounds are also responsible for the all-encompassing sense of *happiness* we sometimes feel. Endorphins are thought *to reduce blood pressure and have been linked in the fight against cancer*. People who exercise know endorphins well, as they produce what is known as 'runner's high'. These same pleasant feelings are also experienced by people who meditate, and studies show this is due to the higher levels of endorphins that meditation elicits.

HGH

Deep meditation dramatically boosts levels of HGH (human growth hormone), the *anti-ageing* hormone which your body naturally produces. HGH *stimulates our growth throughout childhood and sustains our tissues and organs throughout our life*. Starting in our 40s, our pituitary gland which produces HGH, gradually decreases the amount it creates. The body's diminishing supply of HGH causes the frailty that comes with aging—decreased bone density, decreased muscle mass, increased body fat, weakening heart contractions, poor mood, lack of motivation, and poor exercise capacity. This is why so many people nowadays spend lots of money to take HGH, yet we can induce and enhance its production for free through meditation.

Cortisol

Cortisol is the one hormone you want less amounts of and meditation is proven to significantly decrease the levels of this harmful hormone in our body. Higher and more prolonged levels of Cortisol, an *age accelerating* hormone, in the bloodstream has been found to have effects such as *decreased bone density, elevated blood pressure, suppressed thyroid function, weakened cognitive performance, chronic stress, blood sugar imbalances such as hyperglycemia, decrease in muscle tissue, lowered immunity and inflammatory responses in the body, increased abdominal fat (which is related to many more health problems than fat deposited in other areas of the body), heart attacks, strokes, increased levels of "bad" cholesterol (LDL) and decreased levels of "good" cholesterol (HDL), which lead to other health problems*.