

Jayne Tubb



## ON THE BORDER

*Info & insights from the interface between energy healing & science*

### March 2011



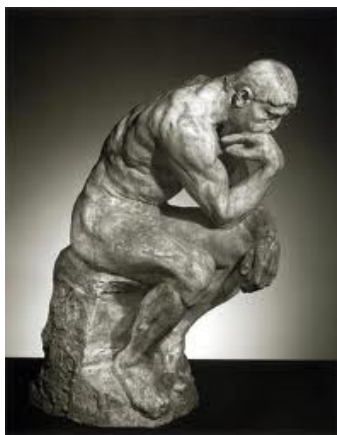
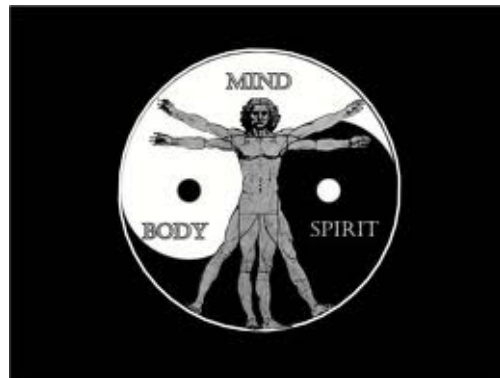
Welcome to the March 2011 edition of 'On the Border'.

For those of you new to 'On the Border', this is Jayne's monthly Ezine newsletter about the latest information and insights into energy fields, healing and science. Each month I share with you some of the latest research and how it applies to healing, energy work & (daily) life. There's a Fascinating

Facts section and also a 'Freebie' where you get something for nothing, gratis.

### Putting the Body Back Into Body-Mind-Spirit

Within the healing world we so often get used to focussing on the mind and spirit that we tend to forget about the body....We know that psychological problems can produce physical symptoms in the form of psychosomatics, for example, that mental stress can give you headaches, an upset stomach or even heart problems. But we often forget to appreciate that the influence also runs in the other direction—that changes in your body can profoundly affect your mental state.



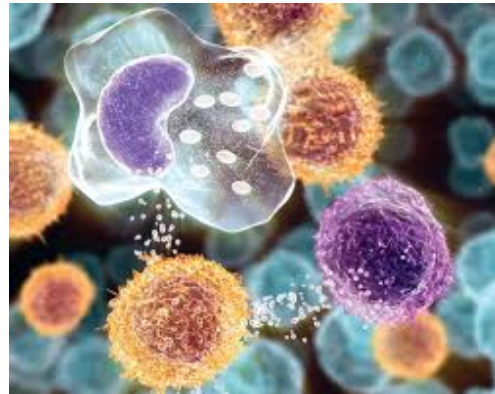
In Western culture people have long treated body and mind as separate. Thanks to French philosopher René Descartes in the 17th century and his famous statement of *cogito ergo sum* (I think therefore I am), we still see this reflected in medical practice today: the specialists who look after our bodies remain different from those who attend to our psyches. Fortunately, this division has blurred in recent decades.

Whereas the word psychosomatic is a familiar concept, the reverse of this “somatopsychology” (the

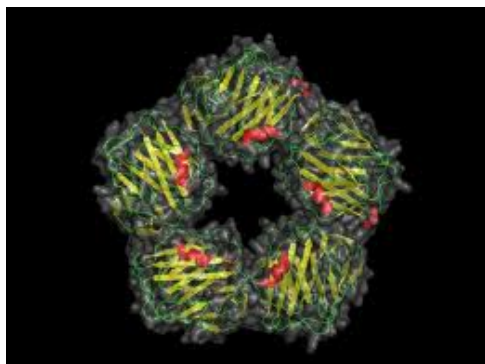
body after the mind) is not really known. In spite of this the data linking specific bodily ailments to psychiatric troubles are far more prevalent, especially in the case of depression.

If you have been feeling tired, low and adrift from your friends—and cannot shake your bad mood—you may have symptoms of depression. Although psychiatric drugs, counseling and therapy are the standard remedies, they do not always work. In some cases, these treatments fail because the root of the problem lies in the body—and in particular the immune system.

Your body's defenses affect the brain, in large part, through immune signalling molecules called cytokines. These substances cross the blood-brain barrier and bind to receptors on neurons in brain structures that govern emotions. The brain cells respond by unleashing substances called neuropeptides, which produce fatigue, lowered concentration and social withdrawal.



As a result, when you are fighting a cold, for example, symptoms such as a runny nose and sore throat are accompanied by a feeling of exhaustion and a desire to be alone, reactions that stem from the brain and serve to inhibit physical activity. When inflammation becomes chronic, for example, after bacteria entrench themselves inside isolated pockets of the body, such as the tonsils and sinuses—so can your bad mood. Safe from immune system attacks in these locations, the pathogens multiply and spread out through the body at a slow but steady rate. Although you no longer feel sick, your immune system's continued vigilance can keep you in low spirits for weeks and months.



In 2010 epidemiologist Julie Pasco found evidence that chronic inflammation raises a person's risk of acquiring depression and may be a cause of this mental disorder. The researchers followed 644 mentally healthy women from 20 to 84 years old for a decade, periodically measuring their blood levels of C-reactive protein (CRP), a marker for low-grade inflammation, and assessing them for symptoms of depression. They found that the risk of depression (which 48 of the women developed) increased with CRP concentration, even after adjusting for various lifestyle factors and illnesses.

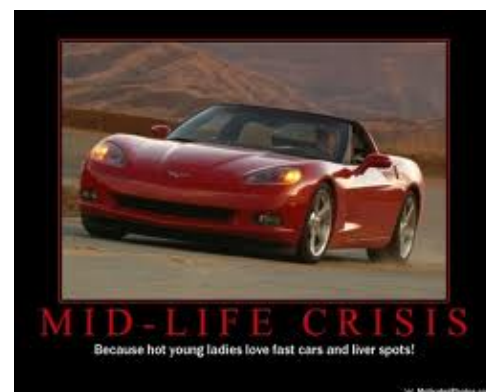
Other studies have shown that people with a diagnosis of depression or bipolar disorder tend to exhibit higher levels of inflammation than people without mental illness. In addition, the depressed patients most likely to show signs of persistent inflammation are those who have been most resistant to antidepressants and talk therapy. What is more, inhibiting inflammatory

cytokines seems to help relieve the blues in these cases, research suggests. A newly identified player in this process is an enzyme called IDO that is elevated in inflammatory disorders such as type 2 diabetes and rheumatoid arthritis. In 2009 immunophysiologist Keith Kelley induced low-grade chronic inflammation in mice by giving them tuberculosis vaccine. The injection boosted IDO levels in their brains, presumably a result of the actions of cytokines. The mice got sick, but even after they recovered they showed signs of rodent depression: placed in a bucket of water, they made little effort to escape. The behaviour of the mice vastly improved, however, after the researchers gave them a drug that blocked IDO, indicating that the enzyme is a critical link between inflammation and sour mood.

### Hormone Havoc

Bad moods can also arise from changes in hormones, signaling molecules that circulate in the blood. Compared with the electrical and chemical signals neurons send to one another, hormones act more slowly, but their influence on the body and brain endures for longer periods, exerting psychological effects through specialized receptors on brain cells involved in regulating emotions.

If you are a man older than 40 and you feel tired, unmotivated, irritable and down, your “midlife crisis” could stem from lack of the hormone testosterone, which declines slowly but steadily with age. This hormonal drop is associated not only with physical symptoms such as erectile dysfunction and muscle weakness but also with lasting self-doubt and depression.



Fluctuating hormone levels may also precipitate moodiness in women approaching menopause. A drop in the hormone estrogen, in particular, can lead to bouts of sadness and hopelessness or, in some cases, clinical depression. A rise in progesterone and a dip in estrogen toward the end of the menstrual cycle are also thought to underlie premenstrual syndrome, an array of physical and psychological symptoms, including depressed mood, that many women experience just prior to their periods.



In some people, fatigue and bad moods, especially if accompanied by weight gain, are signs of an underactive thyroid, a gland in the neck that controls metabolic rate through its own suite of hormones. Hypothyroidism affects about 1 percent of people, leading to significant physical and mental distress. In a 2010 study German physician Rolf Larisch gave 254 patients with thyroid abnormalities a health questionnaire that identifies mood disturbances. They found that hypothyroid patients with physical symptoms scored above average on the screening test, suggesting that the condition erodes mental health. From

statistical analysis of the results, the researchers concluded that hypothyroidism boosts a person's risk of a mood disorder sevenfold.

In addition to hormonal changes, inadequate intake of several micronutrients, including folate, vitamin B12, calcium, iron and omega-3 fatty acids, can influence a person's emotional state. Calcium in particular is essential to a healthy brain; nerve cells need it to create the electrical impulses they use to communicate with one another.

Nutrient deficiencies may also underlie some postpartum depression. One of the primary culprits may be the omega-3 fatty acids, molecules found most prominently in oily fishes such as salmon, herring and sardines. Various studies, among them trials in which researchers manipulated the amount of these fats in women's diets, have linked low omega-3 levels to a higher incidence of maternal depression. In a 2011 review article, neuropharmacologist Beth Levant described research explaining how a lack



of omega-3 oils could bring on depression. In one study, researchers associated a diet-induced decrease in an omega-3 fatty acid called DHA in the brains of female rats with diminished levels of serotonin, a neurotransmitter thought to be involved in depression, in the brain's frontal cortex. Pregnant women eating a typical Western diet often fail to consume adequate amounts of these fatty acids, research suggests. In addition, many lack other nutrients that are important for emotional stability, such as folate, B vitamins, iron and calcium.

### Smart Water

Depression's close cousin, anxiety, can also have a physical basis. Allergies are among the more surprising causes of such distress and are all the more likely if your nervousness is seasonal. Microscopic arachnids known as house-dust mites are a common source of such hidden allergies. When inhaled by a



sensitive person, proteins in the mite poo often cause asthma and a runny nose. But sometimes these allergic reactions are mild enough to go unnoticed, and a person instead experiences splitting headaches, nausea and a racing heart, symptoms that are often mistaken for an anxiety disorder.

Hormone imbalances can make you anxious, too. For example, a hyperactive thyroid can overproduce its hormones, which become elevated in the blood, thereby putting your metabolism into overdrive. Damage to the adrenal gland can render it unable to produce enough cortisol, which helps the body respond

to stress. A lack of this hormone can result in signs suggestive of anxiety such as a racing heart, irritability and sweating.

Changes in your body can also erode your ability to think clearly. One common offender is a lack of water. Without enough of it, brain cells shrivel up, shrinking brain tissue and enlarging the spaces within the brain, called ventricles. The withered tissue is less able to efficiently process information. In young adults, research suggests, even mild dehydration leading to a loss of 2 to 3 percent of body weight can significantly impair cognitive capacities such as short-term memory, attention and ability to solve math problems. The danger may be greater in the elderly because older people often do not feel thirsty when they should, and insufficient fluids can lead to phases of forgetfulness, speech problems and confusion that relatives often mistake for dementia.



A recent study suggests that your brain has to work harder when you are dehydrated. In 2010 psychiatrist Matthew Kempton asked 10 healthy teenagers to lie inside a functional MRI machine while solving a puzzle, both while fully hydrated and after becoming parched from exercise. The teens did the task equally well under both conditions, but their brains had to exert greater effort in the dehydrated state: blood flow, a measure of neural activity, increased in the frontal and parietal (side) parts of the brain when the body lacked water. The frontal lobe in particular governs so-called executive functions such as planning and decision making. Thus, the researchers conclude, given the brain's limited resources, if a person fails to imbibe enough water over an extended period, his or her ability to plan and to process certain types of information is likely to suffer.



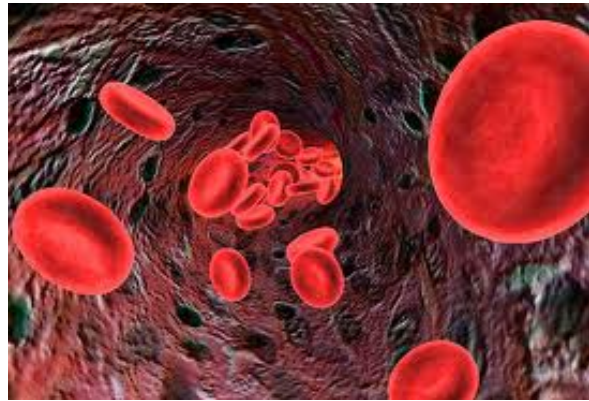
Even under ordinary conditions, just having a drink could help you think—at least if you are a child. In a 2009 study psychologists Caroline Edmonds and Ben Jeffes found that giving mildly dehydrated six- and seven-year-olds a glass of water before a test improved their scores. In another study of seven- to nine-year-olds, additional water similarly boosted performance in an assessment of visual attention.

### **Inflammatory Thoughts**

Cognitive troubles can stem from inflammation as well. In a 2010 investigation biological psychiatrist Clive Holmes found that patients with Alzheimer's disease who showed signs of chronic inflammation from disorders such as arthritis had four times as much memory loss over six months as patients without the additional immune reaction. Patients who also experienced short-term inflammation for example, from an infection showed an even faster decline, probably because (or so the research think) the

excessive immune response killed brain cells. Surgery similarly spurs the immune system to action; it produces inflammation that leads to temporary mental foginess in 7 to 26 percent of patients who have had a recent operation.

Some vitamin and mineral deficiencies can impair cognition. In the developed world, about 10 percent of all women and one in four pregnant women are deficient in iron, which red blood cells need to carry oxygen. In a study published in 2007 nutrition researcher Laura Murray-Kolb gave 113 young women a test of cognitive function and then put them on either iron supplements or dummy pills for 16 weeks. The lower a woman's iron stores, the worse she performed on the initial test, the researchers found. In addition, the women who took the supplements improved markedly on a repeat test, demonstrating better attention, memory and learning, even though many had not been initially anaemic. The results show that even mild deficiency can disrupt cognition and that boosting iron levels can make you smarter.



Seeing mental illness in the context of the entire body can thus help us see sources of distress that we might otherwise miss. In many cases, these bodily imbalances are easier to correct than ailments that originate in the brain itself. Vitamin and mineral deficiencies are relatively simple to rectify with supplements, although a doctor or (nutritional) therapist should advise you about the dose because some vitamins can be toxic in large amounts. One harmless remedy for cognitive lapses is drinking water, especially before tests or during tasks that require thought or concentration.

And now for a glass of water before I get on with the rest of my day :=)

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## Fascinating Facts

Did you know that.....

- \* Most of our dreams last anywhere from five to 20 minutes.
- \* Even though they may not remember them, everyone dreams several times a night. In fact, during a typical lifetime, we spend about six years dreaming.
- \* People who have been blind from birth have dreams that are formed from their other senses (e.g., touch, smell, sound).
- \* Kekule, the German chemist who discovered the structure of the benzene molecule, had worked endlessly to figure it out. Then, in a dream, he saw snakes forming circles with their tails in their mouths. When he awoke, he realized that the benzene molecule, unlike all other known organic compounds, had a circular structure rather than a linear one.
- \* The inventor of the sewing machine, Elias Howe, had struggled in 1884 to figure out how the needle could work in a machine for sewing. In a dream, he found himself surrounded by native tribesmen with spears that had a hole in the point. When he woke up, he realized that a needle with a hole in the point would solve his problem.
- \* Many musicians, including Paul McCartney, Billy Joel and Beethoven, have found inspiration for their music from their dreams. Some hear musical arrangements in their dreams, while others hear lyrics.
- \* Golfer Jack Nicklaus found a new way to hold his golf club in a dream, which he credits as significantly improving his game of golf.

## March Freebie

In this section you get the chance to get something for nothing. Helemaal gratis. Always a pleasure!

This full-of-humour speaker Amanda Gore is a delight to watch and listen to. She talks about 'zoots'....so if you want to know what a zoot is then you will have to watch :=)

<http://www.youtube.com/watch?v=vQFl4aOxiBE>

Zoot, zoot, zooooooot to you all!

Thank you (zoot!) to Veronique Hendriks for sharing this with me so that I can share it with you all.

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