

Jayne Tubb



## ON THE BORDER

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

### September 2011



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

This month there are details about the **Heal! En jezelf ook 2011 Intensive course**.

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.

### How Stress Can Lead to Alzheimers & Parkinson's Disease

The idea that stress may figure into neurodegenerative diseases is relatively new. Researchers have catalogued the effect of stress on numerous psychological conditions, including depression and chronic anxiety. Although the notion that our high-pressure jobs and hectic lives might be doing additional damage could be worrisome, stress is at least something we can theoretically control. That is, trying to relax might be a first step toward raising the chances of keeping your brain free of disease in old age.



In 2007 Nobel Prize winner James Watson came face-to-face with the chemical structure he once helped to unravel in a very personal way.

However, there was one small stretch of DNA on chromosome 19, that he chose to leave in the dark 50 years after solving the puzzle of DNA.....That region was the area that codes for the apolipoprotein E (APOE) gene. Since the early 1990s APOE has been a telling genetic marker of Alzheimer's risk: certain forms of it correlate strongly with the development of the disease. Watson's grandmother suffered from Alzheimer's, but without

any reasonable treatments or proved preventive strategies, the discoverer of the double helix decided the information was too volatile, its revelation creating more potential harm than good. So he decided to keep it secret.

Watson's apprehension could be classed as understandable: treatments for Alzheimer's have consistently failed. However as scientists learn more and more about the brain, they have come to realise that genetics alone rarely dictates the course of an illness. Instead brain disorders result from a complex interaction between our genes and the environments to which we are exposed. Indeed, a set of recent studies has just uncovered an important environmental instigator of neurodegenerative disease: **stress**.

### Tight Quarters

Since Alois Alzheimer first documented "presenile dementia" in a patient at the beginning of the 20th century, doctors have often observed that the disease runs in families. But not until the early 1990s, about the same time the APOE link surfaced, did researchers glean hints that nongenetic factors contribute to it.

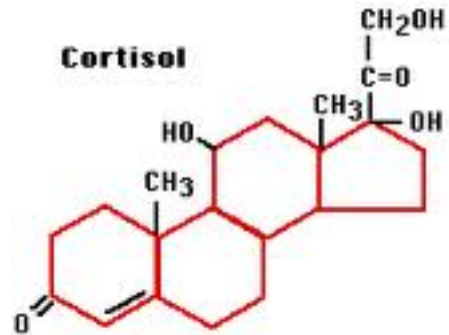


Epidemiologist Brenda Plassman of Duke University teased out this environmental effect by studying identical twins, who share virtually the same genetic material. If a disease is driven purely by genetics, then when one twin develops it, the other will be stricken as well. By analysing data from a large cohort of identical twins (all of them male veterans of World War II), Plassman reported in 2000 that when one twin

developed Alzheimer's, the other twin developed the disease only 40 percent of the time. Concluding that factors besides genetics must be at play, the investigators have since been searching for those contributors. Among the possibilities: subtle medical conditions, occupational characteristics and physical activity levels.

Of course, your job and the amount you exercise both have an effect on your level of psychological stress, the mind and body's response to challenge and change. But only this year did evidence suggest that stress might be a key ingredient in the recipe for cognitive decline. To explore how different environments might affect the development of Alzheimer's, neuroscientist Mark Tuszynski and his colleagues examined the brains of aged rhesus monkeys that had spent their early lives in either small or standard-size cages. Tight quarters have been shown to stress these animals, elevating levels of glucocorticoid hormones in their blood. The exact cause of this hormonal rise—whether it comes from a feeling of being trapped or an inability to get adequate exercise, or both—is still an open question. Cortisol, a glucocorticoid hormone released when humans experience stress, influences the brain through specialised molecular receptors on neurons in a number of brain regions. When cortisol binds to its receptor, the interaction triggers molecular events that reduce communication at synapses, the junctions between neurons, which may ultimately cause the connections to wither away. Using

protein stains that adhere specifically to synapses, enabling them to be seen, Tuszynski's team determined the relative number of synapses in all the monkeys. Using a similar method, the researchers also assessed the amount of sticky amyloid plaques, a pathological hallmark of Alzheimer's.

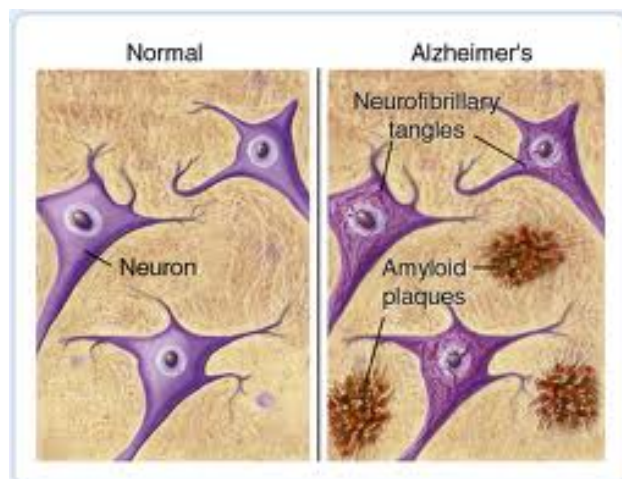


Compared with the monkeys raised in standard-size cages, those that lived in smaller cages had, on average, a significantly higher density of plaques and fewer synapses in one part of their brain—the same pattern seen in the brains of Alzheimer's patients at autopsy. The finding suggests that the size of an animal's cage—and perhaps the amount of stress it endures as a result—may shape that animal's brain in a way that affects its vulnerability to certain types of degeneration as it ages. Interestingly, the amount of plaque riddling the brains of the monkeys housed in smaller cages varied a lot, indicating that stress affects individuals differently. After all, we all know people who seem to take even mildly negative events to heart as well as others in similar situations who take their plight in stride.

The evidence from Tuszynski's group has its limitations. Observations in monkeys living in labs do not precisely mirror the human condition (well, maybe, this doesn't say much for us scientists who 'live in labs'....!). In addition, these findings correlate only one aspect of early-life experience with pathological signs of degeneration. We do not know that the stress caused the changes, nor do we know whether those changes resulted in true cognitive slipups, because the scientists could not test the animals' cognitive function.

### Toxic Tension

Nevertheless, additional studies in rodents suggest that even intermittent strain can tip the scales toward dementia, even if it does not lead to cognitive breaks on its own. In March 2010 neuropharmacologist Karim Alkadhi of the University of Houston and his colleagues put rats at risk for dementia by injecting them with very low concentrations of beta-amyloid peptides, the molecules that form plaques in humans (see picture right). The researchers then stressed some of the animals by placing an intruder rat in their home cage. As



expected, blood levels of corticosterone, a glucocorticoid, rose in the stressed rats.

Then the scientists placed each rat in a water tank containing a maze. A rat had to find the path that led to a platform to escape the water—a rodent test of learning and memory. Usually after a few tries, a rat will remember the correct route; it will then swim directly to the platform, even a day or two later. Most of the experimental rats—including those that had been given amyloid injections and those forced to face intruders—performed well. The rats that had received both the shots and the unwanted visitor, however, had difficulty. So although stress alone does not degrade memory, it does seem to push at-risk animals over the edge, making them less able to learn and remember new things.

Other work hints that stress may hasten the onset of Parkinson's disease, a neurodegenerative disorder characterized by motor difficulties rather than cognitive deficits. The loss of brain cells that produce dopamine, a neurotransmitter essential for voluntary movement, causes Parkinson's patients to shake, become rigid and lose coordination.



To re-create these deficits in rats, behavioral neuroscientist Gerlinde Metz infused a toxic drug into a brain area rich with dopamine neurons. Some of these animals were put into a Plexiglas tube for 20 minutes a day for two weeks, producing a temporary boost in stress hormone levels. Another group received corticosterone shots, which kept the animals' stress hormones high throughout the experiment. Metz's team then tested

the motor skills of all the animals. In one exercise, for example, the rats had to slip their paws through a narrow opening in a Plexiglas box to extract a small food pellet, an action that requires precise and careful movements.

The Metz team's toxic treatment is transient; usually the treated rats' motor skills improve with time. But the animals with elevated corticosterone levels—both the ones that spent time in a stressful environment and those that received hormone shots—continued to struggle with the pellet extraction task long after the other animals had recovered. The results suggest that stress impedes the ability of dopamine cells to recover from insults, triggering or aggravating Parkinson's symptoms.

### Indelible Mark

Using such eye-opening studies as these, scientists are learning that stress is more than a fleeting emotional setback. Rather, in certain situations, stress can leave an indelible mark on our brain.



But there is good news, too. Stress is a contributor to neurodegeneration that can be controlled. Just as many individuals with high cholesterol levels now take preemptive action to stave off heart disease, one day people may use, say, their APOE status to motivate them to adjust their lifestyles. Evidence suggests that simple interventions such as exercise, meditation and getting enough sleep can help reduce the stress of life's encounters. Such measures might even ease the anxiety of knowing which APOE stamp adorns your genome.

### **References**

- ◆ Acute Stress Modulates Genotype Effects on Amygdala Processing in Humans. Helena Cousijn et al. in Proceedings of the National Academy of Sciences USA, vol. 107, no. 21, pages 9867–9872; May 25, 2010. [www.pnas.org/content/107/21/9867.full](http://www.pnas.org/content/107/21/9867.full)
- ◆ Association of Early Experience with Neurodegeneration in Aged Primates. David A. Merrill et al. in Neurobiology of Aging, vol. 32, no. 1, pages 151–156; January 2011.
- ◆ Strain on the Brain A stressful life may fuel Alzheimer's and Parkinson's disease By Brian Mossop pages 60-63. Scientific American Mind Volume 22, Number 3, July/August 2011.

### **Heal! en jezelf ook: de Intensieve Healing Cursus 2011**

Na het grote succes van de nieuwe-formaat 'Heal! En jezelf ook' cursus afgelopen najaar, is het weer terug dit najaar: 4 hele dagen (10-16u) verspreid over november en december.

#### **Wat leer ik?**

Deze intensieve cursus is een zeer praktijkgerichte training verspreid waarin je bewuster wordt van je eigen energieveld (aura) en het leert beheersen. 'Heal! En jezelf ook' is de perfecte cursus om meer te leren over energievelden, aura's en healing. Dus pak nu je kans!

Tijdens de cursusedagen, leer je:

- \* bewust(er) te worden van energievelden - óók in je dagelijkse leven
- \* hoe **ji**j energievelden ervaart en waarneemt op jouw persoonlijke manier (zien, voelen, horen, weten, ruiken)
- \* de 4 verschillende technieken om te werken met energie
- \* het waarnemen van en het heen & weer schakelen tussen de 7 niveaus van het menselijke energieveld
- \* de 4 dimensies die gebruikt worden tijdens een healing (fysiek, aura, hara en wezenster)
- \* gronden via gebruik van je hara
- \* hoe je je eigen veld voorbereid voordat je een healing geeft
- \* een hands-on healing uitvoeren
- \* beschadigingen in een energieveld te repareren (breuken, scheuren enz)
- \* het energieveld schoonmaken (verwijderen van wolken en mucus - ja, echt

waar!)

\* om bewust(er) te worden van guidance en intuïtie vóór, tijdens en na een healing

### **Cursus data 2011**

DAG 1: Woensdag 9 november

DAG 2: Woensdag 23 november

DAG 3: Woensdag 7 december

DAG 4: Woensdag 14 december

Ik vraag aan iedere deelnemer voor een volledig commitment, dwz dat je alle dagen aanwezig bent. Een cursusdag missen (voor wat voor reden dan ook) en dan inhalen is geen optie.

### **Locatie**

De Ruimte, Weesperzijde 79A (boven), 1091 EJ Amsterdam

### **Cursus tijden**

Ontvangst is vanaf 9:45u en de cursusdag begint om 10u. We zijn klaar om 16u.

### **Lekker eten inbegrepen!**

De cursus is volledig verzorgd.

Inbegrepen is een verzorgde vegetarische lunch (Jayne's man, Sjoerd, is chef en die kan errrrrg lekker koken. Dus dit is een traktatie op zich!). Versnaperingen, koffie en thee zijn de hele dag beschikbaar.

### **Kosten**

Deze cursus kost €425, inclusief btw en eten/drinken tijdens de cursusedagen.

Indien gewenst, krijg je per cursusedag aparte rekeningen (4 x €100) die je kunt indienen bij je zorgverzekeraar. Afhankelijk van je polis, je verzekeraar en wat je dit jaar al vergoed hebt gekregen zou je de cursus vergoed kunnen krijgen.

### **Taal**

Deze cursus wordt gegeven in het Nederlands.

Mensen die niet Nederlands zijn kunnen zich zeker opgeven maar een goede beheersing én begrip van de Nederlandse taal is nodig om deze intensieve dagen goed te kunnen volgen. Let op: Er wordt dus NIET in het Engels lesgegeven.

### **Hoe kan ik me aanmelden?**

Door het aanmeldingsformulier te downloaden, in te vullen en op te sturen aan Jayne Jubb.

De download is beschikbaar op: [www.jaynejubb.com/healintensive2011.doc](http://www.jaynejubb.com/healintensive2011.doc)

Je kunt je ingevulde formulier dan opsturen per email naar [contact@jaynejubb.com](mailto:contact@jaynejubb.com) of per post naar Buiksloterbreek 57, 1034 XD Amsterdam.

Om je plaats te reserveren is een €75 non-refundable aanbetaling nodig. Dan pas is je plaats definitief gereserveerd. **Gezien de grote belangstelling voor deze cursus wordt het: wie het eerst betaalt, het eerst maalt** (en dat het aanbetaling op mijn rekening zichtbaar is!).

Het resterende bedrag van €350 dient binnen te zijn vóór 5 november 2011. Maar natuurlijk mag je ook alles in één keer betalen. Het rekeningnummer is 7904714 tnv Jayne Jubb te Amsterdam. Je plaats is gereserveerd zodra dat je aanbetaling van €75 ontvangen is.

### **Fascinating Facts**

Did you know that.....

- The term “stress” derives from the Latin *stringere* (to draw tight)
- While it is a myth that stress can turn hair gray, stress can cause hair loss. In fact, *telogen effluvium* (hair loss) can begin up to three months after a stressful event.
- In 2009, the top most stressful jobs were a surgeon, commercial airline pilot, photojournalist, advertising account executive, and real estate agent. The least stressful jobs were actuary, dietitian, astronomer, systems analyst, and software engineer
- Stress can make acne worse. Researchers say stress-related inflammation rather than a rise in sebum (the oily substance in skin) is to blame.
- Scientists suggest that stress is part of the evolutionary drive because it has enabled humans to survive. Specifically, stress temporarily increases awareness and improves physical performance.
- Extreme or sudden emotional trauma can lead to “broken heart syndrome”(BHS), or stress cardiomyopathy (severe heart muscle weakness). This condition occurs rapidly, and usually in women. In Japan, BHS is called “octopus trap cardiomyopathy” because the left ventricle balloons out in a peculiar shape.
- Research has shown that dark chocolate reduces stress hormones such as cortisol and other fight-flight hormones. Additionally, cocoa is rich in antioxidants called flavonoids

### **September Freebie**

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

Since the theme of this month’s On the Border is stress, I thought you might like something to help you check your own stress levels: Heart Math’s stress & well-being survey <http://www.heartmath.org/free-services/self-assessment-tools/stress-and-well-being-survey.html>

Especially now that the summer holidays are over and work is started up again , you may find this useful to do occasionally in the coming months.

### **Contact Details**

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### **Back Issues**

If you have missed any of the previous issues, then the main articles and full newsletter pdf links can be found at [www.jaynejubb.com/backissues.htm](http://www.jaynejubb.com/backissues.htm) The Freebies each month are only valid for that month....

### **Subscription Management**

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If you have received this Ezine Newsletter from a friend because you are not on my list, but would like to be, then please send me an Email and I can get you signed up immediately.

My subscriber list is not made available to other companies or individuals. You are trusted and valued clients and I certainly will not abuse that trust!