

Meditation and the Brain

Effects of stress in our bodies.

Serotonin is a chemical that influences our emotional state: a happy state is associated with increased levels of serotonin and an unhappy state is associated with decreased levels. Stress reduces the serotonin level considerably. Moreover, stress will lead to higher levels of the hormone cortisol in our blood stream, which triggers our 'flight or fight' reflex. This leads to a permanent state of tension and alertness to danger, which in turn is proven to lead to memory loss, depression and anxiety. Meditation's impact on stress underlies many of its proven physical health benefits.ⁱ

Mental illness often starts in childhood.

Recent research at Yale University shows: "...how people who regularly practise meditation are able to switch off areas of the brain linked to daydreaming, anxiety, schizophrenia and other psychiatric disorders. The brains of experienced meditators appear to show less activity in an area known as the "default mode network," which is linked to largely self-centered thinking. The researchers suggest through monitoring and suppressing or "tuning out" the "me" thoughts, meditators develop a new default mode, which is more present-centered."

"...Meditation has been a central part of philosophical and contemplative practices for thousands of years: it helps the practitioner to be mindful of the present moment, Brewer told the press, and studies have shown it is also linked to increased levels of happiness. ... Conversely, the hallmarks of many forms of mental illness is a preoccupation with one's own thoughts, a condition meditation seems to affect," he added.ⁱⁱ

How important is Attention?

Most of the effect of meditation depends on attention through concentration. Every child instinctually understands attention. Attention is essentially the experience of forgetting yourself and being "other" focussed, fully engaged with the object of attention. Attention requires an open receptivity and giving of oneself, whether it's an activity or relationship. Attention switches on the right side of the brain – empathy, connectedness, seeing the whole picture in context with feeling included. How does this happen? This is done by training the brain to focus on one point.

In meditation, this capacity for attention is developed by learning to focus and concentrate on the interior repetition of a mantra or sacred word. Through meditation, bridges are built between the two sides of the brain.

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Do we have a blissful brain or do we live in a house divided?

“One of the most famous word-pictures of the brain was formed by the English scientist Sir Charles Sharrington. He pictured the brain as ‘an enchanted loom where millions of flashing shuttles weave a dissolving pattern, always a meaningful pattern but never an abiding one...’”ⁱⁱⁱ Now, a hundred and twenty-five years later we see it differently.

In very simple terms, each side of the brain has quite robust differences in function. These functions indicate distinctions rather than a dichotomy.

“The right hemisphere develops and is more active in the first two or three years of life. The left comes on line around the second birthday, followed by a periodic shift in the developmental thrust of left and right in the years ahead. The connecting tissue—the corpus callosum—begins its developmental thrust at this time, lasting well into the twenties.

The functioning of the left hemisphere is easiest to remember because its functions have 4 L’s: Linguistics, Linearity, Logic, and Literal Thinking.

In contrast, the right reveals the following feature: Nonverbal, Holistic, Visuospatial, and then a whole host of noncorrelated specialties such as autobiographical memory, integrated map of the whole body, raw spontaneous emotion, initial empathic nonverbal response, stress modulation, and a dominance in the alerting aspect of attention....When functions are separated, the brain can harness them into a state of connection to achieve more complex and adaptive functions. This is neural integration.”^{iv}

Meditation: Part of the Process of Brain Integration

Meditation helps the process of brain integration, wherein the brain and the mind may become more flexible and create new combinations of functioning. Children will find the practice of Christian Meditation is a process in which they have a natural capacity for contemplation. They are open to the experiential dimensions of reality. Their brains retain a neuroplasticity, that is, the right and left functions are not as defined as they are in an adult.

The right side of the brain processes our mystical experiences. One definition of a mystical experience is one in which we feel at one, in harmony, complete. An experience of God is not restricted to a religious context. An infant starts out with an exclusive right brain perception. It sees everything and everyone as being part of one. If we suffered a shutdown of the left side of our brain, we would then again perceive of everything as one.^v

Very small children enjoy experiences of God without descriptive language, at random times when they feel joy, wonder, and wholeness. If you think about it, you can probably remember some experiences that you had as a child, where you felt at one, happy and complete.

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Children will find the practice of Christian Meditation is a process in which they feel like they are 'coming home' - a place that is familiar and real.

Right Brain Hemisphere: Direct Experience

Capacity for direct experience begins to fade or be devalued as the left brain gains dominance. Before the age of two, Alpha waves dominate, but from 2 onwards use of left brain – quite rightly increases.^{vi}

Meditation helps children to reconnect with the right brain way of being and therefore increases a sense of balance. It is not new learning but re-connecting. As children's brains develop the psychological structure of the ego which will help them to navigate the world, evolves with it.

A balanced ego is an asset; a wounded defensive ego becomes a self-limiting prison, an inflated ego is usually a punishment for others. Meditation creates a balance between the ego and the self. Moreover, God created this unique self.

As John Main said, "In the superabundance of God's love we are called to be whom God intended." Meditation nurtures and restores this balance and integration.

Stillness and Silence

It may seem a paradox to many that children can be still and silent and enjoy it, but like adults, children also yearn for the experience of meeting God. Young children have a great openness to the presence of God in their lives and a real readiness for prayer. If they are taught when they are young to be still and silent so that their heart can be opened to the movement of the Spirit, the presence of Jesus and the embrace of God, they will have a gift which will continue to bring them great blessings throughout their life.

It is important that even the smallest child learn to be still and not just be quiet. Being still is very different to being quiet. It is in their stillness that God can speak to their hearts and they can discover the love of God for each of them personally.

ⁱ Dr Shanida Nataraja 'The Blissful Brain - Neuroscience and proof of the power of meditation', 2008.

ⁱⁱ Daniel J. Siegel, *The Mindful Brain*, 2007.

ⁱⁱⁱ Betty Edwards, *Drawing on the Right Side of the Brain*, 1979.

^{iv} Daniel J. Siegel, *The Mindful Brain*, 2007.

^v Jill Bolte Taylor, Ph.D. *My Stroke of Insight*, 2008.

^{vi} Based on research by Erwin Laszlo 'The Interconnected Universe', 1995.