

The Science of Breath and the Mind/Body Connection

by Rory Foster

The “mind/body connection” is a much spoken phrase used in complimentary and alternative healing practices and in Eastern philosophies. According to the ancient teachings of Yoga, between thought and matter there is an intermediate layer of existence—energy—that is the link connecting the mind and body. Yoga calls this energy prana, and individuals bring it into themselves on the vehicle of the breath. Therefore, by controlling one’s breathing, the flow of prana into the mind and body can be controlled.

Breathing is both a voluntary and involuntary function. When our attention is focused on our breath, it is under our conscious control. When our attention is elsewhere or when we are asleep, breathing becomes involuntary and under the control of our lower brain. When we lose conscious control of our breath, it usually becomes irregular and shallow, making the flow of prana haphazard. Conscious attention to our breath enables us to control and regulate the rhythm and depth of inhalation and exhalation; we can then control and increase the flow of prana or life-force energy.

The body and mind are in continual communication with each other. Every thought and accompanying feeling of the mind affects the body via the involuntary Autonomic Nervous System (ANS), of which there are two parts: the Sympathetic Nervous System (SNS) and the Parasympathetic Nervous System (PNS). Chemicals—hormones and enzymes—that correspond to our feelings are released, causing our body to react accordingly. Stressful thoughts and events create feelings that will trigger the SNS, causing accelerated



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heart rate and respiration along with a surge of adrenaline and other stress hormones. Muscle strength is increased, while many organ functions become inhibited. This is our healthy, short-term biological way of keeping us safe and protected—it is our fight or flight mechanism. However, long-term, day-after-day, low-level stress, combined with the accompanying production of stress hormones, are corrosive and destructive to our organs and nervous system.

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In contrast, serotonin and endorphins correspond to pleasant feelings such as joy and happiness, which trigger the Parasympathetic Nervous System. When activated, the PNS stimulates organ function, slows down heart rate and respiration and brings us into a calm, peaceful state—our desired true nature according to many Yoga teachings.

The ancient yoga masters discovered there is a close connection between conscious breathing and the involuntary Autonomic Nervous System and that by controlling the breath we can bring the ANS under our conscious control. We then have the ability to de-stress ourselves by calming and disengaging the Sympathetic Nervous System and halting the

production of stress hormones, as well as activating the Parasympathetic Nervous System.

The science of breath in Yoga is known as pranayama, meaning the control of life-force energy, and it offers many different breathing techniques and exercises that have been practiced by devotees for thousands of years. Instructing today’s patients in the techniques of breath control has become mainstream with psychologists and other mental therapists, since modern medical science now recognizes the benefits of these breathing techniques. By controlling the breath, one can calm the mind, lower blood pressure, de-stress the nervous system, and bring the mind/body connection into harmony and balance.

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