

From the moment my feet stepped onto the yoga mat some 17 years ago, something significant happened. While resting my weary and previously restless bones in savasana, I felt a sense of calm, deep peace; a joy that I dissolved into and hadn't quite felt before. I noticed when I didn't practise that those feelings waned and were quickly replaced with familiar feelings of anxiety, worry and fear. And despite my best efforts to find it, my life lacked a sense of enjoyment.

The increased awareness that comes from yoga creates inner qualities to manage life's challenges with greater ease, and builds a strong sense of self that creates the feeling that all you need to handle life in a positive, constructive way is within you. Happiness seems to be extremely underrated yet desperately needed in our modern, fast-paced, demanding Western world.

The wonderful truth is, we are in control of our experience of happiness through our own efforts, and the ancient philosophers such as Socrates, Plato and Aristotle believed the same! Happiness can be distinguished as either a momentary feeling of happiness, such as the temporary exhilaration of a one-off

experience, or through the true, deep state of happiness experienced as a more long-lasting, deep-seated well of energy.

Happiness requires conscious effort and active participation as well as being the witness to the happiness that exists within. Happiness is multidimensional and multi-dependent on a variety of factors incorporating psychological, physiological, spiritual, emotional or psychosocial factors.

Yoga influences the biochemistry of happiness

Just how our emotions impact our biochemistry is extraordinary, and when we are in a state of happiness, our brain acknowledges these patterns of emotions. A variety of yoga practices such as postures, meditation, breathing and relaxation techniques positively impact the main endocrine glands responsible for the release of the following happy chemicals.

Dopamine

A hormone and neurotransmitter known as the reward and motivational system of the body. Low levels of dopamine impacts areas of physiology and behaviour including our ability to problem solve effectively. This may contribute to perceiving our circumstances in a

negative or perhaps unhelpful way rather than a positive empowering learning opportunity. A vigorous vinyasa practice, the weight-bearing components that yoga creates, as well as relaxation techniques such as yoga nidra and meditation, can boost dopamine levels by increasing cardiorespiratory output.

Endorphins

Endorphins act as a communication channel between the brain and nervous system. They react to external stimuli and emotions as a way to manage fear, anxiety and worry, as well as happiness, joy and pleasure. They are known for creating a sense of euphoria and are effective in pain management. Scientific research acknowledges that those who practice yoga experience increased endorphin levels post practice, commonly known as the 'yoga high'. In fact, a 2012 study found that yoga students showed not only reduced levels of the stress hormone cortisol, but a significant increase in endorphin levels. These compounds are also responsible for the all-encompassing sense of happiness we sometimes feel after a yoga or meditation class.



Walking back to happiness – My top yoga tips

1. Take care of you – if you don't give yourself the nourishment you need, how can you give to others? Find a style of yoga or meditation that works for you and commit to it long term. Sacred space is essential, and is your energy source for groundedness to remind you that you are stronger than any challenge you will ever face.
2. Support yourself first – create, connect and commit to strategies that support you physically, mentally, emotionally and spiritually.
3. Meditate your way to happiness – a study in May 2010 identified that the limbic system is heightened during meditation practice, and as such elevates the experience of happiness that we feel during our day-to-day lives. Certain parts of the brain are activated during meditation and are responsible for our ability to be compassionate as well as happy!
4. Increase happy hormones – boost your serotonin levels with yoga postures, sunshine and reminding yourself of happy experiences, and see how some of those happier times can come back into your life again.
5. Hug one another – science has revealed that hugging increases the release of oxytocin, reducing fear and increasing our sense of trust. The yoga posture apanasana is great for this because, quite simply, you hug yourself.
6. Get a good night's sleep – yoga practices rebalance the circadian rhythms and encourage a healthy sleeping/waking cycle and therefore boost your mood the following day.
7. Get out in nature – nature boosts almost every chemical in the brain, boosting your feelings of happiness. Don't wait till you've hit the wall, incorporate time in nature each week. Go for a walk in the park on your lunch break or get in a run before work – you'll notice a difference pretty quickly.
8. Worry less and laugh more – did you know that laughter boosts endorphins, strengthens immunity, and improves cardiovascular function?
9. Follow your bliss – follow what makes you feel most alive and vibrant and surround yourself with likeminded people.
10. Be consistent – Establish consistency in your yoga practice. It's the key to long-term happiness!

Oxytocin

A hormone produced during sex, orgasm and intimacy, reproduction, childbirth and breastfeeding. Oxytocin is also present during wound healing and management of inflammation as well as emotions associated with reducing fear and increasing a sense of trust. It is related to how we interact with others, and highlights our need for social interaction as a means of happiness. Oxytocin increases through the act of touch, e.g. when receiving a hug, which is known to boost oxytocin levels as well as relax the cardiorespiratory systems and boost immunity. The first study to identify the effects of yoga and oxytocin was published in 2013. It identified that students showed a significant increase in oxytocin levels as well as social bonding. This is perhaps why we are also drawn more to practising together in a yoga class rather than on our own.

Serotonin

A neurotransmitter that influences mood and behaviour. Low levels of serotonin are most commonly linked to fatigue, depression, anxiety, apathy, insomnia, feelings of worthlessness and unexplained sadness. A variety of studies have shown that consistent practice of yoga, meditation, prayer and relaxation increases serotonin levels significantly. This further supports the exceptionally powerful way yoga influences our mood and increases the need for wellbeing. Yoga postures such as inversions and forward bends are therapeutic for the pineal gland and boosting melatonin levels, which is vital considering serotonin production is dependent on a minimum of seven continuous hours of sleep the previous night!

An attitude of gratitude

A 2014 study published in the *Journal of Bodywork and Movement Therapies* identified that yogis who practised at least twice a week had a greater sense of meaning as well as gratitude. This was further supported by a 2013 research paper identifying that 86.5 per cent of practitioners had an increase in their sense of happiness when they regularly practised yoga.

Neuroplasticity and yoga

Modern science has confirmed that the brain constantly aims to rewire itself to create new neural pathways. This rewiring continues to happen every time we choose to perceive an experience more positively, when we

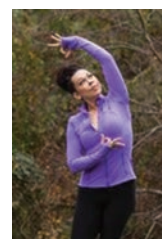
evaluate our experiences from a place of learning and growth versus blocks. Yoga postures naturally generate a continuous, repetitive stimulus every time we challenge ourselves to move beyond what we once thought impossible. This gives us a sense of achievement and encourages the process of self-enquiry – the discovery of what is possible beyond our self-limiting beliefs systems. The brain therefore develops new neural pathways, resulting in the capacity to think, contemplate, understand and react in more positive ways, therefore experiencing greater and longer-lasting happiness.

Neurocardiology – the heart has its own consciousness

Yoga traditions honour the heart as the seat of individual consciousness and the foundation point for all of life and are considered to be the bridge connecting the mind and the body. However, Western science believes that it is in fact the brain that controls all bodily functions, which is interesting considering the heart beats within the unborn fetus before the brain hemispheres have even formed. This is partly because the heart has its own separate nervous system containing around fifty thousand nerve cells and communicates our feelings and emotions to the brain through hormones, neurotransmitters and electromagnetic fields. Science recognises that the heart has an intelligence of its own, suggesting it is the heart that is the primary source of our emotional existence. Maybe then if we learnt to follow our heart a little more, we would make conscious choices that lead to a greater experience of happiness.

Breathe the stress away

Research has shown that pranayama practices support the way in which the body manages stress at a biochemical level. This is partly because some pranayama practice relaxes the nervous system, subsequently inducing a sense of peace that ultimately becomes your natural state when practised consistently. **NH**



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