



Stress and the nervous system

Information sheet

Although it is wise to avoid unnecessary stress in our lives, it is more important to be able to deal with the inevitable stress that will at times arise.

Life is inherently stressful, we can't change that, but we can change how we respond to stressful events. We can learn to minimise our reaction to change, difficulty or pain and recover more rapidly from them. We can do this by learning to be aware of and control our own nervous systems through various yogic practices.

The nervous system is very complex, but what we are interested in here is the autonomic nervous system (ANS).

The ANS controls our internal organs and automatic processes of the body. There are two branches of the ANS: the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). These two systems work together to maintain balance in our body. The SNS is the branch that activates us. It is linked to the adrenals and it helps us to cope with short term stress. We know this as the flight or fight response and it is displayed in varying degrees of intensity depending on the stress we experience. We all know the rush of adrenaline and the resulting tightness of the belly, shortness of breath, increased heart rate and feelings of anger or anxiety. The PNS does the opposite, it slows us down and elicits the relaxation response. It is during PNS activity that our body heals itself. Our heart rate slows, blood pressure drops and restorative functions such as digestion, increased immune function and bone building can occur. **We feel happy, joyful and relaxed.**

Our body's reactions to stressful events are designed to help us to cope with that event and this is fine. The problem arises when the stressful event is over and yet our body is still eliciting the stress response or we have a strong stress response over only minor external events. This eventually depletes our body and causes health problems ranging from headaches, anxiety, insomnia and depression to immune system dysfunctions and heart disease.



Breathing, mindfulness and relaxation techniques we learn in yoga will not change external events, but they can help us to change our internal reaction to them.

With practice, we learn to calm our nervous system by activating the PNS and turning on the relaxation response. So we learn to develop some control over our inner landscape regardless of what's happening in the external one. This benefits our bodies functioning at a biochemical level to promote health and healing and it affects our mental and emotional outlook, giving us more resilience in helping to deal with stressful events so that we may get through them without creating further stress or problems.

Simple ways to activate the PNS and Relaxation Response

- 1. Be aware of your breath:** Whenever you remember, practice simply being aware of your breath. You may begin to notice, that when you encounter stressful events, your breath changes. It becomes shallow, moves up into the chest or stops altogether. If you get a moment (perhaps waiting: at the traffic lights, in a queue or for the kettle to boil), take that time to watch your breath.
- 2. Remember to breathe in stressful situations:** When in a stressful situation remember to breathe – even better belly breathe. Start to recognize these situations such as: worry about a loved one, busy traffic, physical pain, deadlines at work or dealing with difficult people.
- 3. Take time out to practice relaxation:** Take just 5 minutes to lie down each day. Build up to 20 minutes. You could:
 - Practice belly breathing: breathe in and allow the belly to expand; breathe out let your body relax. Breathe in for a count of 4 and breathe out for a count of 7 (making your out-breath slightly longer than the in breath calms the nervous system).
 - Practice a body scan: take your attention through your body, being aware of each part. Start at the feet and work your way up to your head as you breathe easily.
- 4. Positive feelings:** See how you feel spending a couple of minutes a day to consciously generate positive feelings such as gratitude, contentment or compassion. Sometimes it is hard to have positive emotions, especially when stressed or depressed, but just doing it as a short practice can change your nervous system and thus the way you feel.

So you could take a few moments to focus on some of things you are grateful for. Or practice sending loving kindness to yourself or a loved one – wishing them health, happiness and peace. Or practice internally smiling; you can smile at stressful situations, worries, or into painful areas of your body.