



BREATH NOTES FOR HARPIN' BY THE SEA

Breath

"Breathing is absolutely fundamental to our being. We can survive for perhaps 3 months without food, about 10 days without water. But, for virtually everyone, after 6 minutes without breath, we are dead. Our first act at birth is to inhale. And we die on an exhale. Breath teaches us about life, about how to be present, and ultimately about how to live." NB.

Breath is unusual

Breathing is one of the rare bodily functions that is both automatic (via the autonomic nervous system and the brain stem) but also controllable by conscious intervention. We do not have to remember to breathe, any more than we have to remember to keep our heart beating. The body does it automatically: on average around 22,000 times a day! We can also change & control our breathing, and doing so brings physical & mental benefits.

Physical benefits of good breathing (especially through the nose)

Breathing air in & out of the lungs brings in oxygen and flushes out carbon dioxide. Oxygen is pumped round the body and reacts with molecules from food to produce energy and CO₂ as waste. Breathing through the nose (not the mouth) is more efficient. It cleans the air, heats and moistens it, and it also plays a role in our digestion and regulating our blood pressure.

Nostril breathing boosts nitric oxide six-fold. It's a drug that has a big influence on our immune system, our moods, weight & circulation. Mouth-breathing on the other hand causes the body to lose 40% more water, leading to de-hydration. Deep breathing helps make the lungs more efficient and brings in more oxygen. It strengthens the core muscles & the lumbar spine, and massages the heart.

Breath's role in controlling our moods

The rates of average breathing vary widely: between 12 and 25 breaths per minute. A common figure is that average day to day breathing is about four seconds (2 seconds in & 2 seconds out). Experts say the 'average' rate of breathing of people living in the USA is less than 3 seconds.

You may have heard of the "Fight or Fight or Freeze" syndrome: when a person feels stressed or in danger, leading to fast shallow chest breathing activating the "sympathetic" nervous system, releasing adrenaline/other chemicals to focus on survival. This is a necessary function but if people suffer long term stress, its effects can become very negative.

Deep slow breathing consciously activates the vagus nerve & the "parasympathetic" nervous system. This lowers blood pressure and heart rate, reduces anxiety and fear, and releases more oxygen to the thinking brain. It can make people feel "normal" and relaxed again.

Yoga and breathing

People think of yoga as doing physical posture work, but actually there is much more to it than that - including meditation and good breathing (prana yama) techniques which have an even longer tradition going back thousands of years. **It might be interesting to look at 3 different yoga breathing techniques that could be useful for harmonica.**

Alternate nostril breathing

In most people, one nostril is "dominant" over the other. This dominance switches over every 60 to 120 minutes.

The right nostril is known as the "gas pedal" associated with energy and physical activity. It is also linked to the left side of the brain which controls speech, comprehension, arithmetic, logic, language and writing. It stimulates the "sympathetic" nervous system.

The left nostril is known as the "brake pedal" and is associated with emotions and introspection. It is linked to the right side of the brain which favours the cognitive senses (taste, touch, sight, smell, and hearing). This is conducive for undertaking actions that are restful, and are inwardly oriented. It stimulates the "para-sympathetic" nervous system.

The alternate nostril breathing practice helps to even out this alternating dominance and can help us to control our moods and behaviour. Health warning – all breathing exercises can cause light-headedness – if you experience this, simply return to normal breathing.

Demonstration - Practice for two minutes

Square breathing

There are two more breath techniques to try. They both involve deeper, slower breathing already mentioned as having a calming effect.

The first is called 'square breathing' and involves breathing in, then holding the breath, then exhaling and finally holding after the exhale – each for the same number of seconds. So you can visualise it as breathing around a square. We will practice it for three seconds for each segment. Again the same health warning - breathing exercises can cause light-headedness. If you experience this, simply return to normal breathing.

Demonstration - Practice for two minutes

Coherent breathing

Finally, perhaps the most powerful breath technique known as 'coherent breathing'. Researchers have found that this breathing rhythm is similar to many traditional prayer rhythms and indigenous breath practices. It is claimed that it develops strong lung capacity as well as being a potentially powerful meditative tool.

It involves breathing in slowly for 5 or 6 seconds then breathing out equally slowly for 5 or 6 seconds. And doing this continuously for around ten minutes. Many people find it easier to do a longer exhale than an inhale so adjust that if you need to. This can be quite demanding if you have never done it before, so we will just do it for three minutes. And you can always drop out at any time if you don't feel right.

Demonstration - Practice for three minute