



TOPIC OF THE MONTH **June 2014**

Kurmasana and Supta Kurmasana . . . Digested and applied.

There is so much going on in these postures I feel like we need a little more time to divest and apply this information. Information comes at us so quickly these days, taking time to chew on the information and break it down and use it requires a little time and thought.

Btw, speaking of digestion, just a little ayurvedic side note on digestion (which is a very important part of our health); digestion takes about 30 days to complete!

- ॐ First the food we eat becomes *rasa*. *Rasa* has several meanings, here the “juice” suits best. *Rasa* also means lymph, mood, melody, taste, flavor . . . So our digested food becomes Juice.
- ॐ This juice along with certain enzymes becomes our blood
- ॐ Then the blood becomes muscle
- ॐ Then fat
- ॐ Then bone
- ॐ Then nervous tissue
- ॐ And the last bit goes to our reproductive system — sperm and ovum.

This juice or *rasayana* nourishes our tissues. When our digestion is compromised our body is unable to make enough juice to nourish all our tissues. Notice the last tissue to get nourished is our reproductive tissue. This is also the area of the body where our creativity flows from. If you notice your creativity is waning this is a sign from your body to improve your digestion and quality of food.

Kurmasana and Supta Kurmasana

These two postures effect 3 of the major systems of our body; the breathing system, the circulatory system, and the nervous system.

1. The position of our body while in Kurmasana along with the loud breathing we learn as part of the ashtanga practice (called huffing by the medical community) helps to remove phlegm from the lower areas of our lungs.
2. The position of both kurmasana and supta kurmasana bring blood flow to the heart flushing out the coronary arteries reducing strain on our heart. This flushing of the arteries is the only area I have not found studies or information on — however we do have data that show people who exercise have less plaque build up in their arteries. Could exercise increase blood flow enough to flush plaque from our arteries? I hope someday to find some data on this, until then I'll keep the faith that it does :)
3. The position of supta kurmasana stretches the spinal cord where it exits our spine improving neuron flow and how our cells communicate with each other.

Heart Health and the Kurmasanas

For as much as we don't know for sure right now about food and heart disease . . . this is what we do know:

1. exercise reduces heart disease
2. stress increases heart disease

This makes Kurmasana and Supta Kurmasana as ideal poses to keep your heart healthy by:

- ॐ Exercising the body, Kurmasana and Supta kurmasana are in the deepest hottest part of Primary series, where the practice is the strongest and hardest raising our heart rate and giving us a short interval of intensity.
- ॐ Inducing the meditative state — while in supta kurmasana it is as if you've pulled your head and limbs into your tortoise shell — where you are aware of what is out there without being pulled into it. Pulling your senses away from the world in yoga terms is called pratyahara, pratyahara prepares one for meditation. Learning to operate in our daily lives while maintaining a meditative mind reduces stress in our bodies and minds and allows us to make clearer decisions and reactions from a more calm place.



To make the meditative state easier to attain requires a calm nervous system. Kurmasana and Supta Kurmasana (along with other asanas) positively effect on our Nervous System:

- ॐ while in the position of these (and other) asanas your brachial plexus is stretched and relaxed. Remember your brachial plexus goes behind your heart and down your arms innervating your upper body, this plexus is linked to the sympathetic nervous system which is the part of our nervous system that puts stress hormones in our blood. By relaxing this area you reduce stimulation of the sympathetic nervous system.
- ॐ Combine the relaxation of the stress response with stimulating the parasympathetic nervous system through our deep breathing, mula bandha (by putting pressure on the pelvic splanchnic nerves where are only connected to our parasympathetic nervous system), and uddiyana bandha (uddiyana bandha puts pressure on the parasympathetic branch of the vagus nerve). Kurmasana and supta kurmasana positively influence our nervous systems reducing stress. (See below or for more information April 2014 topic: <http://www.befityoga.com/philosophy-lifestyle/topic-of-the-month/> and scroll down to Supta Kurmasana and the Kanda toward the end of the document.)



Reducing stress in our lives is a major step toward a healthier body and mind. Stress is the root of most diseases — it can not only cause imbalances in the body that lead to disease but will exacerbate any existing conditions.

One of the major benefits of the Ashtanga practice is the attention it pays to keeping our nervous system healthy. Three of the main elements of ashtanga yoga stimulate the Parasympathetic Nervous System — Deep breathing, pressure on the pelvic splanchnic nerves via the mula bandha (the pelvic splanchnic nerves connect only to the parasympathetic nervous system), and pressure on the vagus nerve with your uddiyana bandha which also stimulates the parasympathetic nervous system (the vagus nerve has both connections to the sympathetic and parasympathetic nervous system, pressure on the abdomen stimulates the parasympathetic branch of the vagus nerve).



- ॐ When you breathe through your nose it turbinates the air spiraling it deeper into our lungs. In the lower lobes of the lungs are where the receptors to the parasympathetic nervous system are — so deep breathing stimulates the parasympathetic nervous system lowering your heart rate and blood pressure. The receptors to the sympathetic nervous system are in your upper lungs, shallow and/or mouth breathing stimulate the sympathetic nervous system preparing your body to run and fight by raising your blood pressure and heart rate and putting stress hormones like cortisol and adrenaline in your blood stream.
- ॐ In the process of looking at how supta kurmasana stretches the spinal cord where the nerves exit the spine and branch down to form the “horses tail” (caudus equina) I followed how the nerves branch out and how the dura mater (sheath over the spinal cord) and three nerves go all the way to the tailbone, then forward to the anal sphincter. Those three nerves are the pelvic splanchnic nerves (same nerves we press on in janu sirsasana b), the pelvic splanchnic nerves are connected to the parasympathetic nervous system, and they innervate your rectum, bladder, prostate (if you have one), sexual organs among parts of your colon including the sigmoid colon. Therefore your mula bandha (squeezing your anus — but not your gluteals!) stimulates your parasympathetic nervous system . . . which makes total sense . . . you can’t go to the bathroom if you’re stressed out.
- o Jalandhara bandha — the bandha we rarely hear about also influences the parasympathetic nervous system. Jalandhara bandha has you tuck your chin toward the notch in the your sternum. The stretching of the cervical vertebrae at the nape of the neck pulls on the spinal cord relieving pressure on the cranial nerves and acting on the nervous system -- particularly the parasympathetic nervous system -- the part of our nervous system that de-stresses us.
- ॐ And the rest of the proximal **gastrointestinal tract** is supplied its parasympathetic fibers by the **vagus nerve**. The vagus nerve wanders from our skull to our colon, it has both attachments to the sympathetic and parasympathetic nervous system, however in our gut the vagus nerve is parasympathetic, your uddiyana bandha puts pressure on the vagus nerve stimulating your parasympathetic nervous system :) Remember from our topic on the bandhas from the inside out (<http://www.befityoga.com/wp-content/uploads/2013/12/focus-of-the-month-11.13-pdf3.pdf>) that the vagus nerve in the gut regulates the timing of digestion, hence why it would be connected to the parasympathetic nervous system . . . which again, makes total sense . . . you can’t digest if you’re stressed out (nor can you then detox! As the same organs that help us digest also help us detox, i.e. liver). This is why in ayurveda you are not too eat (or even cook) when you are upset as you will not digest well.

A nice way to remember all this and take it off your mat with you is to think:

- ॐ Upper body relaxed (so as not to stimulate the sympathetic nervous system through pressure on the brachial plexus or where the vagus nerve exits the skull).
- ॐ Lower body bandha-ed. Keep a little tension in you mula and uddiyana bandhas most of the day
- ॐ Keep this all together with slow deep breathing through your nose most of your day :)
- o Our breath rate can be on auto pilot or can be controlled. We can not at will give orders to our liver, spleen or stomach but it is possible to regulate breathing at any moment. When our breath is left to subconscious control it is easily influenced by our emotions and what is happening around us, this sets off a chain reaction of stress responses in the body that are not favorable i.e. dry mouth, cold sweat, racing heart, this shallow breath slows down the digestive tract and diverts blood flow and body energy from our organs to fight or flight and stimulates the release of adrenaline. **By consciously controlling our breath and keeping it deep we set off a chain reaction which calms our heart and**



Bobbi Misiti
2201 Market Street
Camp Hill, PA 17011
717.443.1119 befityoga.com

slows our pulses, does not divert blood flow from our organs and body energy helping the organs operate efficiently, and allowing the body to stay in balance, preventing disease.

Yoga techniques improve our breathing and breath awareness 24 hours per day, you breathe deeply not just when practicing asana or meditation, but all day long. Yogic breathing establishes regular breathing patterns.

Breathing and Bandhas Baba Hari Dass Style

I just returned from an awesome weekend workshop with my teacher, Nancy Gilgoff, in Toronto, ON, Canada. During the workshop she taught us Baba Hari Dass's (her Spiritual teacher — Pattabhi Jois was her asana/pranayama and ayurvedic/lifestyle teacher) Tri-Bandha meditation. This was perfect timing after the research above and the additional benefit we now know the bandhas have on our nervous system. This little meditation/breathing exercise helps you work with your bandhas and hopefully gain a better understanding of them mentally, emotionally, and physically. I particularly like how this practice attaches your bandhas to your breath; which many of you hear me say in class often.

Baba hari dass's pre pranayama - tri bandha :

Sit comfortably.

- ॐ Inhale lift mula bandha exhale release. 10x (Create **inner lift** as you “squeeze your anus”, this is not a squeeze of the buttocks or squeezing the anal sphincter tightly shut it is more of a lift in this area)
- ॐ Inhale take jalandhara bandha — taking chin low and slide it up to notch in sternum. Hold 3-4 counts exhale and release. 10x
- ॐ Lean forward, hands on knees exhale fully. Lift uddiyana and hollow out lower abdomen. Hold breath to a comfortable level. Drop belly, then inhale and release. 10x
 - o This breathing exercise is a little more challenging as you are holding your breath out — which is harder than holding your breath in. You may just want to practice a few rounds of holding your breath out before you add the lift of uddiyana bandha on the hold.
 - o When you do add the lift of uddiyana bandha while you hold your breath out; it is a pulling in and upward of your abdominal muscles. Actually quite simple; however what happens for some people is they perform uddiyana kriya — this is a cleansing exercise where you hold your breath out, close your glottis, do the action of inhaling without actually letting any air in; this creates a vacuum in your abdomen and sucks your abdomen up under your ribs deeply. Kinda fun ;) If you do this, be careful when you release it — you need to drop your belly before you inhale. If you inhale without dropping your belly first it will create a gasp performing the valsalva maneuver.

After some time put it all together:

Inhale lift mula bandha, tuck in to jalandhara bandha, hold for as long as comfortable. Exhale fully releasing mula and jalandhara , lift and hold uddiyana bandha as you hold your breath out for as long as comfortable. If you can, lift mula here as well.



Bobbi Misiti
2201 Market Street
Camp Hill, PA 17011
717.443.1119 befityoga.com

Repeat 10x

If you are having a hard time feeling the bandhas in your body, usually this happens in people who either “breathe backwards” or constantly hold their abdomen rigid. As important as the inner lift of the bandhas are, if you hold your abdomen rigid for periods of time it will restrict blood flow and matter movement — the opposite of what we are trying to do with our bandhas.

Breathing backward is a common habit that many of developed — especially if you are trying to “hold your gut in”. Your diaphragm is like a parachute under your ribs, when you inhale it contracts and descends into your abdomen (sucking air into your lungs) pushing your abdomen outward. As you exhale the diaphragm relaxes receding up under your ribs as your abdomen softens inward. When you breathe backward it stimulates your stress response to release adrenaline into your blood stream raising your stress levels. You can feel this effect; gasp as you would if you went to step into a nice warm shower and found it to be cold, this is a backward breath as your abdomen sucked in as you inhaled through your mouth. Just sitting here while you read this doing that maneuver can you feel the spike in your heart rate?

If you find you are a backward breather, you can develop healthier breathing skills by practicing relaxed belly breathing; first exhale fully pulling in your abs and push all the air out of your lungs, then relax and take a deep inhale letting your abdomen expand, then take a deep, long exhale. Repeat a few times and go on with your life. Do this often.

Attached below are copies of the pages from Baba Hari Dass’s book ‘Ashtanga Yoga Primer’ explaining his Tri-Bandha meditation.

Four Purifications (Intermediate Method)

In this method, the *Four Purifications* are done in such a way that there are no 'rest breaths' in between. (Note: This method may be added after practicing the *Four Purifications* separately every day for three to six months.

Do ten rounds of *nadishodhana*. After the last exhalation out the left nostril, inhale partially through both nostrils and immediately begin *kapala bharti*. At the end of one series of *kapala bharti* exhalations, inhale slowly and completely, then exhale all air, hold the breath out, and do *agnisara dhauti*. After a round of *agnisara dhauti*, inhale completely, hold the breath, and do *ashvini mudra*. Exhale completely out the nostrils and begin again with *nadishodhana*. Do five rounds, gradually increasing the numbers and retentions.

TRI BANDHA (Three Locks)

Three *bandhas* (body locks) are used in the practice of *pranayama*, which help to control the flow of *prana*. Mastery of the *bandhas* insures correct *prana-*

yama, so these three methods should be practiced carefully for three months before beginning *pranayama*.

Mula Bandha (Anal Lock)

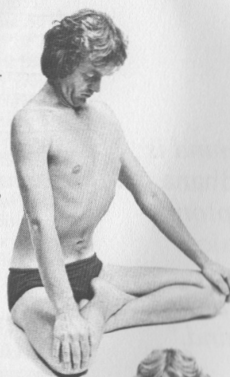
Sit in any meditation posture. (*Siddhasana* is best for this method.) Inhale slowly and completely, contracting and lifting the anal sphincter muscle. Exhale slowly and release. Start with ten rounds, gradually increasing to twenty.

When the technique is perfected and used with *pranayama*, contract slowly with inhalation, hold the contraction during retention, and release slowly with exhalation.

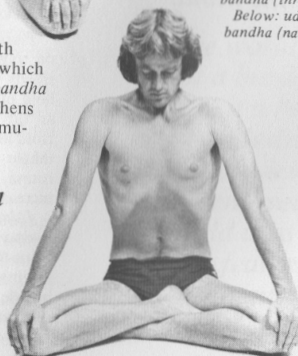
Mula bandha causes *apana vayu*, which normally flows downward, to rise and unite with *prana vayu* at the navel center, which then awakens *kundalini*. *Mula bandha* increases concentration, strengthens the reproductive glands, and stimulates the gastric fire.

Jalandhara Bandha (Throat Lock)

Sit in a meditation posture. Inhale slowly; then bend the head forward and press the chin tightly into the hollow of the neck, keeping the spine straight. This stops the



Top: jalandhara bandha (throat lock)
Below: uddiyana bandha (navel lock)



breath. Hold as long as possible without strain. Raise the chin; then exhale slowly. Begin with ten rounds and increase gradually to twenty rounds.

According to Yoga physiology a subtle nectar flows from *sahasrara chakra*, falls to *manipura chakra*, and is consumed by the gastric fire. *Jalandhara bandha* prevents the nectar from falling, which brings calmness, long life, and good health. Thus the name *Jalandhara*, which means "cloud-holding, receptacle of vital fluid".

Jalandhara bandha presses on *visuddha chakra* where there is a network of subtle nerves. By pressing the chin tightly against this center, the movement of energy in sixteen centers is stopped, which brings infinite peace.

Uddiyana Bandha

(Navel Lock)

Place hands, fingers pointing inward, on thighs just above the knees. Exhale slowly and completely. With breath held out, pull the abdomen up and in as far as possible toward the spine. Hold as long as comfortable. Relax and inhale slowly. Exhale and do another round. Start with ten rounds, gradually increasing to twenty rounds.

Uddiyana bandha pushes *prana* into *nabhumna*, forcing *kundalini* upward. Thus the name *uddiyana*, which means "flying up". *Uddiyana bandha* increases gastric fire; strengthens the lungs; and alleviates indigestion, abdominal diseases, and menstrual disorders.

PRANAYAMA

(Breath Control)

Pranayama is best learned from an experienced teacher. Practice regularly with a positive attitude; a lot of *pranayama* one day and little or nothing the next day is improper practice. *Pranayama* must not be forced; if it is, one can damage the brain, heart, or lungs. If any adverse physical symptom appears due to wrong *pranayama*, stop immediately and do *viparita karani mudra* (see page 39). If symptoms continue, stop all *pranayama* and do only the *Four Purifications & Eight Kriyas*. Consult a teacher. People with ulcers, heart or lung disease should not do *pranayama*; they can do the *Eight Kriyas*.

Perspiration generated by *pranayama* should be rubbed back into the body, as it is charged with electrical energy (*ojas*) and makes the body strong.

Pranayama is practiced on an empty stomach; wait at least two hours after eating. Wear loose clothing and sit on a thick mat or blanket in a meditation pose (see page 46), with the back, neck, and head in a straight line. Concentration is on *ajna chakra*.

Tribandha Pranayama

(Three Locks Breath)

Inhale slowly through both nostrils and apply *mula bandha*. Then hold the breath and apply *jalandhara bandha*. Lift head, exhale slowly and smoothly and simultaneously squeeze the stomach in with *uddiyana bandha*. Begin with ten rounds and gradually increase to twenty.

Tribandha pranayama purifies the *nadis* and awakens *kundalini*.

Dirgha Rechak

(Long Exhale Breath)

Inhale normally; then exhale as slowly and smoothly as possible. Concentrate on the exhalation, making it long, smooth, and subtle. Inhale again normally, and start another round. Begin with ten rounds and gradually increase to twenty.

Dirgha rechak makes the exhalation long and subtle. It strengthens *prana*, digestion, the lungs, and sharpens the mind and memory.

Dirgha Purak

(Long Inhale Breath)

Exhale normally; then inhale as slowly and smoothly as possible. Concentrate on the inhalation, making it long, smooth, and subtle. Exhale normally and start another round. Begin with ten rounds, gradually increasing to twenty.

Dirgha purak makes the inhalation long and subtle. It strengthens *prana*,

digestion, the mind and memory.

Ujjayi pranayama

Ujjayi pranayama has been practicing, with the throat to be twice the length of the body. Begin with ten rounds, gradually increasing to twenty.

Ujjayi pranayama has been practicing, with the throat to be twice the length of the body. Begin with ten rounds, gradually increasing to twenty.

Note: In *Ujjayi pranayama*, the throat is held closed, and the air passes through the glottis, a soft breath is made in the throat for four to five seconds, close the throat, and the air passes through the glottis.

Ujjayi pranayama increases appetite and reduces cough and fever.

Shitali pranayama

Fold the tongue so it is like a tube, with the tip of the tongue beyond the lips. Inhale through this tube with the tongue held in place, swallow the air, and hold the breath without the tongue.