



## «Conch gesture» (shank prakshalana)

*by Artem Frolov*

Some authors compare a human with a plant growing in a pot, and that pot is the colon. The health and well-being of a plant greatly depend on the condition of the soil.

The statement is largely true. In any case, in recent years, physiology and clinical medicine have been attributing increasing importance to the proper functioning of the intestine and drawing a connection between many diseases and the processes occurring in the lower digestive tract. It is becoming more and more apparent that our mood and our health depend on the state of the intestinal microflora and its function. When one considers individual techniques and the hatha yoga system as a whole, it becomes evident that ancient Indians understood the essence. By applying certain kriyas and procedures, as well as through regular and balanced asana practice, we can achieve more consistent, regular and efficient functioning of intestines and other parts of the digestive tract.

Shank-prakshalana is a powerful cleansing procedure, which provides a range of fortifying effects. “Shank-prakshalana” translates as “conch gesture” or “conch effect”, meaning that during the procedure water comes out of the body as clean as it entered, as if flowing through the conch.

Let us start by discussing the technique of the procedure, which is performed by drinking several glasses of salt water, followed by exercises to push the hypertonic solution through the gastro-intestinal tract (GIT). The whole procedure is performed until only clear liquid comes out, resulting in an in-depth cleansing and washing of the entire digestive tract, especially the intestines.

For 1-2 days prior to the shank-prakshalana procedure, one should abstain from consuming protein and other foods that are heavy on the digestion. A diet of cereals and boiled vegetables is recommended during these days.

Shank-prakshalana is best done on an empty stomach, so a perfect time to perform the procedure is upon waking up in the morning.

After the regular hygienic procedures, several series of agnisara-dhauti-kriya can be performed, followed by the SHP procedure.

The first step is to prepare a solution. It is important to avoid a common beginner mistake of making a highly saturated solution. Overly salty water creates a high osmotic pressure in the intestines, leading to absorption of fluid from the bloodstream into the intestine, reduction of the circulatory blood volume and overall dehydration. This will only complicate the procedure and worsen one's health condition.

The optimal concentration for the solution is 1 tsp of salt per 1 liter of water. It is best to add ½ tsp of magnesium sulfate to the first liter of water (magnesium sulfate is sold in drugstores in the form of small crystals). Magnesium creates a laxative and cholagogic effect, which facilitates the procedure and makes it more efficient. Adding lemon can further facilitate the process (about a quarter of a lemon per liter).

After preparing the solution, we can start the procedure. The first stage consists of alternating the consumption of the solution with physical exercises (described below). In the beginning, the process follows the 'glass – exercise – glass – exercise' scenario. Usually the first few glasses of the solution are not accompanied by an urge to have a bowel movement. Afterwards, visits to the bathroom are added after each series of exercises, resulting in a 'glass – exercise – toilet – glass – exercise – toilet' scenario. During the final stage, the scheme takes the form of 'glass – toilet – glass – toilet', because there is no longer time left for the exercise.

The first glass of water is followed by a series of exercises.

**First exercise:** Tiryaka Tadasana. It starts in a standing position (Fig. 1), with feet hip width apart, fingers interlocked and arms stretched up above the head. Do side bends while keeping the torso, pelvis and legs in the same plane, alternately stretching the sides of the body, trying to focus the movement in the middle part of the torso (the stomach and duodenum region). It is believed that the exercise promotes the opening of the pyloric sphincter and passage of the solution from the stomach into the duodenum.



Fig. 1

**Second exercise:** Kati Chakrasana. It starts in a standing position (Fig. 2), with feet hip width apart and arms stretched out at the shoulder level. Twist the upper body to the right and to the left, wrapping the arms behind your back, turning your shoulders, keeping the pelvis and the legs fixed in the same position, keeping the torsion primarily in the abdomen. It is believed that this exercise helps to move the solution through the small intestine.



Fig. 2

**Third exercise:** Tiryaka Bhujangasana. Start this exercise lying down on the stomach (Fig. 3) and plant the palms flat down on the ground next to your chest; leaning against the palms, raise your head, shoulders and chest off the ground (Bhujangasana). Rotate the shoulders, straightening one arm and slightly bending the other, looking over your shoulder at the opposite heel. Repeat on the other side. Similarly, you can do this exercise from urdhva mukha shvanasana (planting the toes against the floor). It is believed that this technique moves the solution through the lower part of the small intestine and the transition between the small and the large intestine.



Fig. 3

**Fourth exercise:** Start this exercise in a squatting position, knees apart. Udara Karshasana (Fig. 4) Kneel on your left knee, twist the trunk to the right, with the right knee raised, the right thigh pressed against the abdomen. Repeat on the other side. This technique is believed to move the solution through the large intestine.



Fig. 4

Repeat each exercise 8-16 times on each side. All four exercises performed in a row without interruption make up one set.

During the first stage, we drink 4 glasses of the solution, following each glass with the series of exercises. After the fourth glass and the series of exercises, you should go to the bathroom. It is possible that the solution has at this point already had its laxative effect, in which case you will proceed with the procedure, visiting the toilet after each glass and exercise series.

If the fourth glass is not followed by a bowel movement, you will need to have two more glasses, alternating them with the exercises.

Thus, it comes out to a total of 6 glasses. If there is still no urge to defecate, you should take a break. A common beginner's mistake is to keep drinking the solution, in the hope that it will "push" the contents of the intestine and launch the process. This approach often leads to spontaneous vamana dhauti, and the entire solution is regurgitated whence it has entered. However, we need for the solution to exit out of the opposite end of the digestive tract.

Therefore, you should take your time and pause the process if there is still no urge to defecate after the sixth glass. Lie down in Shavasana and relax for a bit. Perform a simple inverted asana (Viparita-Karani Mudra), gently massaging the abdomen (clockwise, following the large intestine). You can perform an additional series of exercises. Often the "jamming" occurs at the junction of the small and the large intestines (the so-called ileocecal sphincter). To overcome this obstacle, you will need to massage this area in a targeted way – from a standing position, slightly lean your body forward and repeatedly dip your fingers directly into the right iliac region (bottom abdomen on the right, in the cecum).

If all these measures still fail to bring on the urge, you will need to administer a 800-1000 ml enema, lying on your left side. After that, a bowel movement usually follows, and the process carries on without a hitch.

Place a bottle of fresh water, rich cream and a towel in your bathroom ahead of time, for washing the perianal folds after each defecation and applying the cream to them. Otherwise, the hypertonic solution may cause an irritation of the area.

So, you carry on with the process by performing a series of exercises after each glass and visiting the bathroom. You should continue the process until the water runs clear. The first time

usually takes 2-3 liters of solution. Magnesium can be added only to the first liter. After a few times, the procedure will go by faster, requiring less water. The final stages call in for fewer exercises.

Finally, once you have made sure that the water comes out clear and clean, the process can be finished. Usually, at the final stage, the water is clear, but has a distinct yellowish tinge, caused by the active output of bile from the gall bladder.

After stopping the intake of the solution, you have to suspend the activated motility of the digestive tract, returning it to a balanced state. To do this, drink a small amount (half a glass ) of fresh water, and press on the root of the tongue, causing a mild gagging reflex (regurgitating water is not necessary; light gagging is sufficient to gently reverse the process and stop the active propulsion of the contents through the digestive tract).

Over the next hour, you will most likely have to visit the bathroom 2-3 times; this is normal.

Once you're finished drinking the solution, start preparing food. Your digestive system should not be left empty for more than 30 minutes, as the enzyme activity is up, and you have to give it a substrate for digestion. Cook rice without adding salt or milk. Cook it till it is soft and add a tablespoon of regular butter or ghee. Rice absorbs the salt that remains in the gastrointestinal tract.

Throughout the day, avoid vigorous physical activities; your meals should consist of cereals and boiled or stewed vegetables. Exclude all protein-rich foods (eggs, meat, fish, cottage cheese, beans). On the next day, you can add light dairy products. It is advisable to follow a carbohydrate and fat diet for 3-4 days.

To populate intestines with microflora (especially in case of intestinal dysbiosis) you should include a regimen of eubiotics – preparations containing lactobacillus and bifidobacteria – for 2-4 weeks.

The work of intestines is regulated by a very unique section of the nervous system, called the metasympathetic or enteric nervous system.

The entire autonomic nervous system (ANS), which regulates the function of internal organs, is divided into three sections. The work of the first two – the sympathetic and parasympathetic – is widely known. The third section – the enteric or metasympathetic nervous system (MNS) – does not get as much mention, despite being very relevant, especially in the light of the analysis of the physiological effects of prakshalana.

The MNS is responsible for coordination of many structures of the gastrointestinal tract – the blood vessels and smooth muscle motor structures, etc. The MNS consists of about the same number of neurons as there are in the spinal cord – about  $10^8$ , and they are located in muscle and submucosal layers of gastrointestinal tract. This formation is also called the “enteric brain”. For comparison, it is worth noting that the number of neurons in the parasympathetic system, which regulates the digestive tract, comes up to only about 2,000.

In contrast to the sympathetic and parasympathetic systems, rigorously controlled by and subordinated to the CNS, the metasympathetic system runs almost completely autonomously and in line with its own programs, steered by its neurons. The CNS has a certain influence on the work of the MNS, but it basically comes down to the modulation of its activity. The majority of reactions and programmed acts within the MNS are self-contained; the components of neural circuits do

not go beyond the gastrointestinal tract, and the links between the receptor portion and the motor neuron, which moves the elements of the intestinal smooth muscle, for the most part remain outside of the spinal level, not to mention that of the higher autonomic centers of the brain.

Under normal circumstances, the intestinal nervous system (primarily regulating the motor activity of the intestines ) is autonomous. The role of metasympathetic is much more important than that of sympathetic and parasympathetic innervation. For example, a colon extracted during surgery exhibits peristaltic activity for some time.

This mode of functioning provides continuous monitoring, coordination and regulation of intestinal muscle activity at different sites.

Under the influence of various adverse factors, such as chronic stress, irregular and improper nutrition and deterioration of intestinal microflora, various pathological reflexes are generated at different levels. Some are enabled by metasympathetic innervation and formed at the gut level; others become enclosed in the sympathetic nodes; yet others occur on a spinal or central level. All these reflexes perpetuate abnormal, pathological intestinal reactions: spasms of its individual parts, chronic lethargy or hyperactivity. Dysmotility leads, in turn, to poor digestion and / or retention of food remnants in the intestine; these remnants, which failed to be promptly removed from the body start to undergo fermentation, putrefaction, and so on, and the products of these processes are absorbed into the bloodstream and cause autointoxication of the body. Medications often used in such cases to forcibly eliminate dysmotility (constipation, diarrhea or cramping) bring only temporary relief, while further tangling the autonomic "wiring" and amplifying pathological reflex arcs.

The Shankprakshalana effects vary and can not be reduced to a mere mechanical evacuation of feces from the intestines. The hypertonic solution, which is a natural laxative, absorbs water from the surrounding intestinal tissues due to the gradient of osmotic pressure. As a result, the inner lumen of the intestine gets filled. The series of exercises of a predominantly twisting character deliver an intensive intestinal massage throughout the intestines. The neurons in the metasympathetic nervous system, located in the muscle and submucosal layers of the intestinal wall, are methodically and repeatedly "scrubbed," erasing their action potential, which ultimately breaks down pathological reflex connections. This creates the conditions for the reinstatement of normal reflex chains, programmed in the genomes of the MNS, allowing to restore healthy gut reactions and resume adequate and regular function of the intestines henceforth.

I have encountered cases of indigestion problems persisting for one, two or more years of regular practice of asanas, Nauli, agnisara-dhauti and proper nutrition. However, a single session of Shank-prakshalana was enough to make the intestines work again, as if a wakened, as if something got switched on.

The gallbladder, the bile duct system and the complicated mechanism of circulating bile acids play an important role in digestion. Dysmotility of the biliary tract is a very common ailment. Flaccidity of the gallbladder leads to its untimely emptying and the stagnation of bile, which in turn may form stones in the cavity of the gall bladder. Shank-prakshalana has a strong choleric effect, contributing to the emptying of the gallbladder and its ducts, eliminating its congestion. To enhance the choleric effect, a small amount of magnesium sulfate can be added to the solution.

In addition to the original neural regulation, the intestine has another interesting and important feature – its population. More than 500 species of microorganisms populate the large intestine, the total mass of which population in an adult comprises about three kilos.

Out of a large number of microorganisms continuously entering the human digestive tract, only certain types of bacteria have found favorable conditions for existence; in the course of a lengthy evolution, they have settled in and created permanent flora closely tied to the body.

Intestinal microbial biocenosis has a complex hierarchical structure with a rich variety of inter-species relationships. This innumerable army is continuously toiling not only on digesting the food (as previously thought); the intestinal microbe population influences the immune status of the body. In the recent years, more and more details have been revealed about the relationship of intestinal biocenosis with the hematopoietic, cardiovascular and other systems. It becomes clear that the intestinal microflora amounts to a kind of organ, an integral component in general homeostasis.

Naturally, changes in the composition and properties of the intestinal microflora lead to deviation in the adjacent systems. Microbial imbalance may be caused by a number of reasons – antibiotic therapy, inadequate bowel movements and problematic dietary habits. Recent studies have demonstrated a connection between the microbial landscape and the environmental situation.

It is not always easy to cope with intestinal dysbiosis using the methods of conventional modern medicine. A complex treatment programs may include an antibiotics regimen to suppress the abnormal microflora, followed by attempts to repopulate the intestine with desired species of bacteria. In cases of already existing disorders of intestinal motility and inadequate excretion, restoring normal microbial balance can becomes even more difficult.

When conducted properly, the procedure of Shank-prakshalana creates conditions for the revival of microflora approximating those present in a newborn: the bowels of a newborn infant are sterile and with proper nutrition get populated with the “right” microflora. The intestinal microbial population in an adult can be divided into two demographic s: luminal, which lives in the bowel lumen, and parietal, found in the mucus covering the villi of the intestinal epithelium. These two categories have different functions, properties and “ethnic make-up.” The first, luminal pool of microbes is completely removed by Shank-prakshalana, while the second, residing in the parietal mucus, remains. Thus the intestine, even though it does not quite acquire the sterility of a newborn’s bowels, becomes a favorable environment for the formation of normal microflora almost “from scratch” – provided proper subsequent nutrition.

After the procedure, it is important to follow a correct “post- prakshalana diet.” The period to adhere to a strict dietary regimen varies across different sources between one day and a week. The truth, as always, is somewhere in the middle. Intestinal colonization by microorganisms requires exclusion of protein foods for three to four days. A diet of fat and carbohydrates will give the substrate required for the growth of bifidobacteria and lactic acid bacterial populations that form the basis core of healthy intestinal microflora.

All methods of hatha yoga when used correctly and in the right situation, can have a powerful healing effect, at times exceeding all expectations. Practiced improperly, and especially in the presence of contraindications, the cleansing techniques of Kriya Hatha Yoga can inflict significant harm.

Shank- prakshalana is contraindicated in case of any acute chronic diseases of the gastrointestinal tract, cholelithiasis, adhesions in the abdominal cavity, history of intestinal and stomach hemorrhaging, during menstruation and pregnancy and abnormally high blood clotting. It should

be remembered that Shank-prakshalana has a powerful impact not only on the digestive tract, but on the entire body, so before undertaking Shank-prakshalana it is recommended to consult a hatha yoga or Ayurveda specialist.