



## Ingenious Triphala: A Curative Preparation for Healthcare

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### Abstract

Triphala churna is an herbal formulation commonly used in the Indian healing art of Ayurveda. It is composed of equal parts of three dried medicinal fruits amalaki, bibhitaki, and haritaki purported to increase health and longevity and enhance the immune system. This formulation is rich in antioxidants as well as gallic and ascorbic acids. The components of triphala churna make it suitable for treating a variety of medical conditions. Triphala churna is being extensively studied in India to discover its biochemical mechanisms in alleviating illness. One area of interest is using the formulation in treating various cancers in human beings. Tests on mice have shown significant reduction in cancerous stomach tumors. Triphala also suppresses breast cancer cells and reduces the survival rate of pancreatic cancer cells in humans, while leaving non-cancerous cells alive. Before using this herbal formulation, talk to your doctor to ensure it will not interfere with any current treatment plan. Triphala churna may be effective at protecting the cells of the human body against radiation damage. It has been observed that mice fed with this ayurvedic medicine had a mortality rate reduction of 60% when exposed to radiation. Furthermore, triphala reduces DNA damage in blood cells and inhibits oxidative injury to organs. These effects are observed after only seven days of triphala churna use. Triphala churna is effective at preventing infections. Due to the drug resistance and toxicity associated with synthetic antibiotics, plant-based remedies may be better at treating cuts and wounds. Triphala has been shown effective against staph and strep bacteria, among others. A study performed on rodents showed that the herbal remedy improved wound healing and offered significant reduction in bacterial growth. It also demonstrated antioxidant properties. Triphala is a botanical preparation comprised of equal parts of three herbal fruits: Harada (*Terminalia chebula*, black myrobalan, The Buddha's Chosen Herb), Aaonla (*Emblica officinalis* or Indian gooseberry), and Bihara (*Terminalia bellerica*). Because of its high nutritional content, Triphala isn't regarded as a mere laxative. Some of the scientific research and practical experience of people who have used it down through the ages has demonstrated that Triphala is an effective blood purifier that stimulates bile secretion as it detoxifies the liver, helps digestion and assimilation, and significantly reduces serum cholesterol and lipid levels throughout the body. As a result, it is regarded as a kind of universal panacea and is the most commonly prescribed herbal formula. In this article various meaningful applications of triphala are delineated precisely.

**Keywords** *Terminalia chebula*, *Emblica officinalis*, *Terminalia bellerica*, *Linoleic acid*, *Ginsenosides*

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## 1. Introduction

The three fruits of Triphala (*Harada*, *Aaonla* and *Bihara*) each correspond to the "three humours" or "tridosha" of Indian Ayurvedic medicine. According to Ayurvedic theory, the body is composed of three doshas or humours. Vata is sometimes translated as "wind" which corresponds to the mind and nervous system. Its nature is dry, cold, light and activating. The second is pitta which is also translated as "fire" or "bile." It is responsible for all metabolic transformations including the digestion and assimilation of food as well as assimilation and clarity of thought and understanding. The nature of pitta is primarily hot, moist and light. Kapha is sometimes translated as the "water" or "mucus" humour and is responsible for all anabolic or building functions such as the development of muscle and bone tissue. Its nature is cool, moist and heavy. *Harada*, having a bitter flavor, is associated with the vata humour and with element of well air and space. It treats imbalances and diseases of the vata humour. *Harada* possesses laxative, astringent, lubricant, antiparasitical, alterative, antispasmodic and nervine properties. It is therefore used to treat acute and chronic constipation, nervousness, anxiety and feelings of physical heaviness. Among Tibetans, *Harada* is so highly revered for its purifying attributes that it is the small fruit that is depicted in the hands of the "medicine Buddha" in their sacred paintings or *tankas*. Of the 3 fruits, *Harada* is the most laxative and contains anthroquinones similar to those found in rhubarb and cascara.

*Aaonla* has a sour flavor and corresponds to the pitta humour and the fire element in Ayurvedic medicine. It is a cooling tonic, astringent, mildly laxative, alterative, antipyretic. It is used to treat fire imbalances that include ulcers, inflammation of the stomach and intestines, constipation, diarrhea, liver congestion, eruptions, infections and burning feelings throughout the body. In various studies, *Aaonla* has been shown to have mild anti-bacterial properties, as well as pronounced expectorant, anti-viral and cardiotoxic activity. *Aaonla* is the highest natural known source of vitamin C, having 20x the vitamin C content of an orange.

The vitamin C in *Aaonla* is also uniquely heat stable. Even when subjected to prolonged high heat, as in the making of the Ayurvedic tonic formula called *Chyavanprash* (*Aaonla*, as the primary herb comprises 50% of the formula), it loses hardly any of the vitamin C that was present when it was freshly harvested off the tree. The same is true of *Aaonla* that has been dried and kept for up to a year. This age and heat stable form of vitamin C that *Aaonla* possesses is due to the presence of certain tannins that bind and inhibit its dissipation. *Bihara* is astringent, tonic, digestive and anti-spasmodic. Its primary flavor is astringent and the secondary is sweet, bitter and pungent. It targets imbalances associated with the kapha or mucus humour, corresponding to the earth and water elements in Ayurvedic medicine. Specifically *Bihara* purifies and balances excess mucus, treats asthma, bronchiole conditions, allergies and hiccoughs. Triphala is a popular Ayurvedic herbal formula from India that consists of equal parts of three myrobalans, taken without seed: Amalaki (*Emblica officinalis*), Bibhitaki (*Terminalia Belerica*), and Haritaki (*Terminalia Chebula*), with potential anti-cancer properties and is also an effective colon cleanser. In addition, triphala also props up the body's strength. Triphala is a Sanskrit term that literally denotes "three fruits". The three herbal fruits of triphala endorse internal cleansing, reduce conditions of stagnation and excess, and perk up digestion and absorption of nutrients.



Owing to its superior dietary value, triphala possesses the capability to cleanse as well as detoxify the deepest organic levels without causing any injury or harm to the body or draining its nutritional reserves. In fact, such unique properties of triphala make it one of the most prized herbal preparations worldwide. In India, there is a popular adage saying, "A child needs not worry even he does not have a mother as triphala will take care of his requirements". This denotes that triphala takes care of the internal body organs, as a mother looks after her child. Triphala is considered to be the foundation stone of Ayurvedic medicine and comprises equal proportions of

Haritaki (basically stabilizes vata, however, is tri-doshic), Bibhitaki (provides an equilibrium to kapha and pitta) and Amalaki (provides poise to pitta and kapha). In Ayurvedic medicine, Amalaki, biologically known as *Emblica officinalis*, is considered to be a supreme rejuvenator as well as a physically potent natural antioxidant. This herbal fruit is also effective in enhancing the immune system and stabilizes the pitta. On the other hand, Haritaki, known as *Terminalia Chebula*, is regarded as the 'king of Tibetan medicine'. Haritaki is a standard tonic or natural stimulator for the heart, brain and longevity. This herbal fruit is often portrayed in the extended palm of the Buddha and is known to stabilize vata.

The other herbal fruit constituent of triphala is Bibhitaki, known as *Terminalia Belerica*, is a potent bolter that is effective in lessening the heart and liver ailments and also enhances the voice, eyesight, endorses hair growth as well as balances kapha. According to the findings of a recent survey conducted globally, triphala was considered to be the most outstanding colon cleanser available anywhere in the world. In fact, all the three herbal fruits contained in triphala possess laxative properties and are also effective in getting the body rid of all toxins. For centuries, colon cleansing has been known to be an established practice to revitalize the body. Here it is important to mention that colon cleansing is actually a process by which all toxic substances and decomposed food residues are removed from the walls of the intestines. While colon cleansing thwarts colon cancer, other benefits of the practice include divesting oneself of hemorrhoids, constipation, parasites, acne, flatulence, foul breath and stinking body. In addition, colon cleansing is also effective in getting relief from headaches, depression and irritability.

Ayurvedic physicians had formulated the triphala several thousand years back and millions of people have used and benefited from this herbal preparation since then. Even today, most medical practitioners consider triphala to be the most effective as well as the safest laxative and colon cleanser found anywhere. While most other colon cleansers or tonics are exhaustive in nature, triphala is placid, non-habit forming as well as an efficient revitalizing agent. This blend of three herbal fruits enhances the absorption of the ingested food in the intestines, especially in duodenum - the part of the digestive system where majority of the assimilation occurs. In addition, triphala also possesses the property to induce the secretion of several gastric enzymes that aids in transforming compound foodstuff into more simple digestible variety. Triphala also promotes the peristaltic action (the progressive wave of contraction and relaxation of a tubular muscular system, especially the alimentary canal) of the intestinal lining owing to its anthraquinones and other bitters that also helps in suitable movement of food at different levels of the alimentary canal. Moreover, the Ayurvedic formulation of these three herbal fruits also aids in softening the stool and in this manner facilitates the evacuation of the bowel more effortlessly. For many people, triphala is laxative owing to the anthraquinones, while the stabilization of the tannins naturally present in the herbal medication has a toning result. When tested in vitro (the technique of performing a given procedure in a controlled environment outside of a living organism), triphala has shown to be lethal for an assortment of gastronomical pathogens, together with bacteria like *Salmonella typhi*, *Shigella*, *Klebsiella* and *Pseudomonas* and fungi such as *Candida albicans*.

Some time back, scientists conducted a comparative study regarding the efficiency of *Emblica officinalis* or the Amalaki fruit powder with a standard antacid formulation. The study that lasted four weeks covered altogether 38 patients suffering from dyspepsia and with or without stomach ulcer. These 38 patients or subjects were divided into two groups - one group was given the Amalaki fruit powder, while the antacid formulation was administered to the remaining patients. Patients who were given the Amalaki fruit powder were provided a dosage of three grams thrice daily. On the other hand, each dose of the gel antacid comprised 30 ml and given six times every day. During the study, researchers noticed a progress in the clinical indications score that included belching, heartburn, fullness, nausea, regurgitation and vomiting in ulcer dyspeptics from an initial 4.2 to 0.4 after the treatment in the group of patients who were given the gel antacid formulation.

On the other hand, the improvement score in the group administered Amalaki (*Emblica officinalis*) fruit powder was found to be from an initial 4.6 to 0.6 post treatment score. Endoscopic tests conducted on all the 38 patients showed that while all the patients in the antacid group were in the healing process, all patients, barring one, in the *Emblica officinalis* group had been totally cured of their ulcers! On the other hand, it was observed that patients who did not suffer from stomach ulcers, both the *Emblica officinalis* and the antacid induced patients reported considerable decline in clinical symptoms score from an initial 5.0 to 1.61 and 4.4 to 1.53 correspondingly. It may be mentioned here that triphala's advantages for the digestive system make it a genuinely very effective herbal medication for treating the irritable bowel syndrome (IBS) and ulcerative colitis.

People suffering from acute obesity are also naturally affected by blocking of the internal organs that help in eliminating food wastes and toxins from the body. In other words, critical portliness also has an effect on vital organs such as the liver as well as functions like bowels. According to the findings of a latest molecular study, triphala has been effectively used in treating obesity traditionally. Meanwhile, scientists at the BRA Centre for Biomedical Research of Delhi University in India have discovered that the dynamic molecules in triphala attach to

the cellular receptor from CCK or cholecystokinin. CCK is basically a satiety (a condition of being satiated) hormone and is released by the body to specify that an individual is full. It expresses the desire to limit further food intake, as after completing a satisfying meal. In addition cholecystokinin is also quick to respond to fat. Presently, differently pharmaceutical firms are in the process of developing artificial analogs of CCK with a view to help people comprehend that they are full. In turn, they are able to be in charge of their desire for food and maintain a healthy weight. Overeating and obesity upset digestion and, at the same time, overstrain the gastrointestinal track, including the liver and bowel. Consequently, digestion is jeopardized resulting in poor absorption of nourishments, disparities and overgrowth in the intestinal microflora and putrefaction or decaying of ill-digested food. In such situations, triphala is very effective in getting rid of the stagnation of the liver as well as the intestines.

As triphala has a strong inclination towards micro-organisms, such as bacteria, virus, fungi, they are unable to cause any harm in the body and are turn inactive. Such astringent or caustic aspect of triphala enables it to purify the blood and, at the same time, help in preserving the appropriate density of the blood. Therefore, triphala has proved to be an effective herbal medication in getting rid of all ailments borne by the blood, and hence, also eliminating all skin problems. In addition, triphala has been found to diminish serum cholesterol as well as bring down high blood pressure. This blend of three herbal fruits also enhances the performance of the liver significantly and augments circulation of blood to all parts of the body. At the same time, triphala is capable of providing an extraordinary fortification against all types of cardiovascular ailments. Triphala also lessens the probability of any type of fat accumulation in the arteries, thereby diminishing the hazards of problems related to the heart that is induced owing to arteriosclerosis. Researchers have established that triphala possesses potent antioxidant agents that significantly help in normalizing the metabolism of the cells and enable their appropriate functioning. As a result, this diminished the complete hazard of generating free radicals that are said to be the primary cause of the aging process. This herbal medication also invigorates the accurate performance of cell organelles, such as the mitochondria, Golgi bodies and nucleus, all of which play a very crucial role in the appropriate operation of the cells. Latest researches conducted by scientists have demonstrated that triphala is also an anti-cancer agent and it possesses the capability to eliminate tumor cells while leaving the normal cells unscathed.

Researches as well as traditional practices have proved that triphala is a very effectual herbal medication to treat diabetes mellitus. The islet of langerhans (regions of the pancreas that contain its endocrine or hormone-producing cells) present in our pancreas emits insulin. It may be mentioned here that insulin is responsible for preserving the suitable intensity of glucose in the body. In addition, owing to its astringent flavor, triphala is also recommended for use in the hyperglycemia (abnormally high blood sugar usually associated with diabetes). A study conducted by the American Botanical Council demonstrated that triphala genuinely lowered the intensity of blood glucose in diabetic rodents. The study deduced that the means of the action of the extracts of the three herbal fruits (triphala) for lessening the glucose content in blood is not recognized.

However, triphala is likely to reduce the consequence of inflammatory cytokine (a protein that serve as messengers between cells) secretion in diabetes and this may consecutively diminish the resistance to insulin. It is amusing to note that the authors of the study found that the customary medicines that are administered to cure diabetes too have considerable antioxidant results. It may be noted that the use of triphala is also widespread for healing ophthalmic ailments. And this also includes the treatment of eye ailments like progressive myopia, conjunctivitis, cataracts as well as the initial stages of glaucoma (an eye disease that damages the optic nerves and impairs vision. At times it may also lead to blindness). Before wrapping up the subject, it needs to be mentioned that the use of triphala, a combination of three herbal fruits, is the most widespread combine used in Ayurvedic medications since ages. If one goes through the Ayurvedic literature, he or she will find that the use of triphala fills volumes of pages. In addition to being an all-purpose stimulant or tonic, triphala is a mild laxative, serves as a nourishing substance for the eye, skin and liver and is also a common detoxifying agent that cleanses the body of all toxins.

#### **Harada; Aaonla; Bihara: Invented Anecdote**

Triphala, as it is called, is the most popular Ayurvedic herbal formula of India, since it is an effective laxative that also supports the body's strength. The constitution of vegetarian Hindus cannot tolerate harsh laxatives anymore than vegetarians in other countries. Because of its high nutritional value, Triphala uniquely cleanses and detoxifies at the deepest organic levels without depleting the body's reserves. This makes it one of the most valuable herbal preparations in the world. How is Triphala different from other kinds of laxatives? There are two primary types of herbal laxatives. One is called a purgative and includes herbs such as senna, rhubarb, leptandra, buckthorne and cascara. These often contain bitter principles in the form of anthroquinones that work by stimulating the peristaltic action of the intestinal lining, either directly or by promoting the secretion of bile through the liver and gall bladder. The second type of laxative is a lubricating bulk laxative, including demulcent herbs such as psyllium and flax seed. This is more nutritional and usually does not have any significant direct effect on either the liver or the gall bladder. Instead, these work like a sponge by swelling and absorbing fluid, thus acting as an intestinal broom. The most

popular herbal remedies in the health food industry are those that promote bowel movement. The reason is quite simple since a very common problem for so many individuals is constipation and bowel irregularity. Consider how tremendously valuable a formula is that not only regulates bowel movement but at the same time does the following:

- a. Improves digestion,
- b. Reduces serum cholesterol,
- c. Improves circulation (potentiates adrenergic function),
- d. Contains 31% linoleic acid,
- e. Exerts a marked cardio-protective effect,
- f. Reduces high blood pressure,
- g. Improves liver function,
- h. Has proven anti-inflammatory and anti-viral properties,
- i. Expectorant, hypotensive.

(Terminalia chebula) According to the renowned herbalist, Dr. Michael Tierra, Tibetans so revere Harada that the fruit is depicted in the hand of the "Medicine Buddha" in sacred paintings. (1) Numerous studies have found that Terminalia chebula (TC) supports digestion and aids in treating both acute and chronic constipation. Aonla (*Embllica officinalis*) is the edible fruit from a small tree native to India. As with Terminalia chebula, EO has been shown to increase gastric emptying and to possess a broad spectrum of antimicrobial activity against a number of test bacteria. (2) Bihara (*Terminalia bellerica*) is rich in protein (40 %) and oils (35 %), and is particularly high in the omega 3 essential fatty acid, linoleic acid.



## 2. Nutritional & Therapeutic Applicability

Triphala combines both nutritional as well as blood and liver cleansing actions. It has little function as a demulcent or lubricating laxative, however. It possesses some anthroquinones that help to stimulate bile flow and peristalsis. The nutritional aspect is in the form of its high vitamin C content, and the presence of linoleic oil and other important nutrients that make it more of a tonic. People who are in need of purgatives are those whose bowel irregularity is caused by liver and gall bladder congestion, usually accompanied, to some degree, by blood toxins. Those in need of demulcent laxatives are those with intestinal dryness caused by a variety of metabolic factors including a nutritional deficiency as well as a condition of excess hypermetabolic energy.

Triphala will prove useful for all kinds of constipation except that caused by a lack of vital energy or chi. Even for the latter type, it will not further deplete such an individual and can be made to work well if it is combined with other chi, blood or yang-warming tonic herbs such as ginseng for chi tonification, tang kuei for blood tonification and prepared aconite for yang tonification. Herbal healing is largely a matter of strategy. One approach may emphasize tonification while another emphasizes elimination. The problem with overemphasizing tonification is that it can lead to further stagnation and congestion in an excess condition. Emphasizing elimination through the overuse of purgatives in an already deficient individual can further deplete the body's store of minerals and essential B vitamins and can also cause an imbalance of beneficial intestinal microorganisms. The result is weakness with a likely tendency towards chronic fatigue and anaemia. Since the body is always simultaneously involved with maintaining and gaining strength through good nutrition as well as eliminating waste, Triphala is unique in that it is naturally able to support both vital processes simultaneously. We herbalists believe that the longevity and innate power of herbs such as those of Triphala are, when ingested, energetically absorbed and imparted to our reserves. This belief exists with herbs such as wild ginseng, where specimens that have "weathered" decades of climatic stress have been found to contain the highest concentration of ginsenosides. The Ginkgo tree is another of those long lived plants whose evolution extends back over millennia to the time of the dinosaurs. Ama is a term denoting a substance associated in Ayurveda with chronic disease patterns and symptoms of aging. It is described as a kind of sticky build

up of material that clogs the circulatory channels. In many ways it is nearly identical to the accumulation of excess cholesterol and blood lipids described in the West. Both conditions seem to contribute to a wide variety of circulatory disorders ranging from senility to rheumatic conditions, cancer and heart disease. It is interesting that in Traditional Chinese Medicine there is also a pathological condition associated with the heart called "invisible mucus" that is similar to the descriptions of both excess cholesterol in the West, and amla in Ayurveda.



One of the body's reactions to coping with stress is to increase the production of corticosteroids. The accumulation of these stress hormones can also contribute to the formation of cholesterol. Internal stress and the resultant buildup of cholesterol can be caused by the abuse of stimulants, spicy, hot foods such as garlic and cayenne, excessive aerobic exercise and repression of the emotions. It is interesting that some of the very substances and activities that can lower cholesterol in some, when not utilized in a holistic, balanced manner, can act as a stimulant and add further stress that would precipitate the further accumulation of cholesterol. Triphala is one of two Ayurvedic formulations that are specific for eliminating Ama and cholesterol from the body. Triphala is a completely balanced energetic formula, being neither too cold, nor too hot. When taken regularly over a long period, it gently effects the elimination and purification of Ama from the tissues of the entire body. The three fruits have been scientifically studied and confirm some of its known traditional benefits. These include the lowering of cholesterol, reducing high blood pressure, benefiting circulation, improving digestion and regulating elimination without causing any laxative dependency.

### 3. Research Realm

One Indian study demonstrated the enormous value and effectiveness of Amla, in reducing serum, aortic and hepatic cholesterol in rabbits. In another study, extracts of Amla fruit were found to decrease serum free fatty acids and increase cardiac glycogen. This helps to prevent heart attacks by providing significantly greater protection and nourishment to the heart muscle. Studies of the fruit of Bihara found that it contains up to 35% oil and 40% protein. The oil is used in soap making and by the poorer classes, as a substitute cooking oil for ghee. The sweet smelling oil is 35% palmitic, 24% oleic and 31% linoleic. Linoleic oil is an essential fatty acid important for increasing HDL cholesterol, associated with a healthy state and reducing LDL cholesterol, considered to indicate a higher-than-average risk for developing coronary-heart disease. One of numerous studies of Harada demonstrated its anti-vata or anti-spasmodic properties by the reduction of abnormal blood pressure as well as intestinal spasms. This confirms its traditional usefulness for heart conditions, spastic colon and other intestinal disorders. With all the virtues of the three individual herbs, Triphala has many wide and varied uses as a therapeutic herbal food. Before considering pathological indications for which Triphala would be appropriate, we should never ignore the value of taking it on some regular basis whether once daily or once or twice a week simply for health maintenance. Triphala, having great nutritional properties, will help to prevent sickness.

It's an instance meeting a yogic master who was in his late eighties and staying in Santa Cruz for a few months. Being clear of mind and body, he could out walk anyone, both in terms of speed and distance. Besides his practice of meditation, he considered the fact that his remarkable fitness and health was primarily due to the fact that his diet consisted primarily of Kichari (mung beans, rice, ghee and spices, i.e., cumin, coriander, turmeric and salt) and a daily dose of Triphala as the primary herbal tonic. There are numerous reports of individuals with chronic constipative tendencies who were able to regulate their bowels with the use of Triphala. One patient with a history of bowel irregularity was suffering from pyorrhea. After taking Triphala twice a day for three months, she was completely cured. Another patient who was at least 40 pounds overweight began taking Triphala and lost 20 pounds in a month with hardly any modifications in her diet.

The reason is that because such severe obesity is usually accompanied by congestion of the internal organs of elimination, including the liver and bowels. As a result, digestion is compromised with the poorly assimilated food contributing to the organ congestion. For such conditions, Triphala can be highly effective in removing stagnation of both the liver and intestines. Regardless of any other herbs being used, Triphala can be prescribed singly or adjunctively whenever there are symptoms of inflammation, heat, infection, obesity and other conditions of excess. Because of its combined tonic and eliminative properties, it is generally quite safe to give even for deficiency diseases including anemia, fatigue, candida, poor digestion and assimilation. Unlike other eliminative and cleansing herbs, Triphala may be safely taken for symptoms of wasting heat that frequently accompanies diseases such as tuberculosis, pneumonia and AIDS. There are two ways to take Triphala, as a powder or tablet. Traditionally Triphala is taken as a churna or powder. One would stir in two or three grams of the powder with warm water and consume the entire amount each evening or divided into three doses throughout the day. Since for most it does not possess a flavor that one would look forward to experiencing, it is convenient that Triphala is available in tablet or capsule form. Generally the dose is from two tablets 1-3 times daily or four to six tablets one time daily. Children may only require one or two tablets in the evening.

The larger dose is more laxative while the smaller dose tends to be more gradually blood purifying. A smaller dose might be one or two tablets three times daily. One should increase or decrease the dose according to one's bowel movements. Since there are no problems in using Triphala, the dose can be adjusted upwards from the suggested amount. Triphala is also widely taken for all eye diseases including the treatment of conjunctivitis, progressive myopia, the early stages of glaucoma and cataracts. For these conditions, it is taken daily both internally as described above, as well as externally as an eye wash. Steep one tablespoonful of the powder or six tablets in an 8 ounce glass of water overnight. In the morning, strain the infusion through a clean cloth. The resultant tea is used to sprinkle over the eyes or used in an eyewash with an eyecup that can be readily purchased at most drug stores. One can drink the remainder in one or two doses, morning and evening. Taken in this way for at least three months, Triphala becomes an herbal eye tonic. As stated, there can be different reactions to the same dose of triphala. For some it causes too loose bowels while in others it may have little or no effect. As a result, it may take two or three days to regulate the dose that is best. After the constipative tendencies are removed, usually within 15 days of daily application, it will no longer cause loose bowels.

### **Current Clamour & Cure Advantages**

Presently Triphala is distributed and available in the US from a few different sources. The powder can be purchased in most Indian food import stores in larger cities. Tablets are currently manufactured and distributed by Planetary Herb Formulas as well as a few other companies. I have used Triphala as a regular part of my clinical practice for at least ten years. I know that other Ayurvedic doctors both here and in India also regularly prescribe Triphala for most of their patients to be taken at least once each evening. For centuries, Triphala has been known and used as a standard household health supplement much as vitamins are in the West. In many households, Triphala is taken on a weekly basis by all family members to prevent disease and maintain health. In India, Triphala is considered the greatest and most versatile of all herbal formulations. With the presence of such a vitamin C rich herbal food as *Aaonla*, it possesses unique nutritive tonic and eliminative properties. Both the public and therapists of all disciplines should be able to benefit from its unique therapeutic virtues. Planetary Products was the first to introduce Triphala to the US herb market.

It is no wonder that it is one of the best selling formulas in the entire line. Triphala is traditionally taken and works best when taken as a powder. The average dose is from one to two teaspoons of the powder in a little water once in the evening or three times daily for blood and general body purification. It can also be taken regularly once a week with great benefit since it promotes balanced cleansing and detoxification. The tablets are for convenience since many find the powder too have too unpleasant a flavor for the more spoiled tastes of Westerners. Triphala has been found to be very effective for helping to control weight gain, chronic constipation and as an adjunctive treatment for many chronic degenerative conditions. Ayurveda is a 5,000 year-old healing tradition rooted in ancient Indian culture. This vast body of healing knowledge ,, sometimes referred to as the "Mother of All Healing" ,, has recently come to the attention of Western medical researchers seeking novel therapeutic compounds. While screening a number of traditional Vedic formulas scientists discovered that one of the most revered of all Ayurvedic compounds ,, Triphala ,, exhibits a number of health benefits, including:

- a. Exhibits antioxidant activity
- b. Lowers cholesterol
- c. Normalizes blood pressure
- d. Inhibits HIV
- e. Reduces tumors in animals and Protects and improves liver function.

Healthy digestion requires the coordination of a complex pattern of contracting and relaxing muscles in the stomach and intestines (gastric motility) for proper digestion and absorption of nutrients. Gastrointestinal motility is disrupted when the nerves and muscles of the GI tract fail to function in a strong or coordinated fashion. Motility can be disrupted by stress, inflammation (i.e. Crohn's disease), disease (i.e. muscular dystrophy, systemic sclerosis and amyloidosis) and from use of over-the-counter and prescription medications. Symptoms of motility disorder range from mild cases of heartburn and constipation to more severe problems, such as chronic vomiting, nausea, cramping, bloating, abdominal distention and diarrhea after eating. The most prevalent form of motility disturbance is Irritable Bowel Syndrome (IBS), which fully accounts for 50 % of all patients who go to a GI specialist.[3]. To increase GI muscle contractions and improve gastric emptying, Western doctors often prescribe prokinetic drugs such as Metoclopramide or Bethanechol. When researchers compared the Triphala herb Harada (*Terminalia chebula*) to prokinetic drugs they found that *Terminalia chebula* increased gastric emptying by 86 %, compared to 76 % for metoclopramide. Since *Terminalia* is free of side effects, the herb may be a useful alternative to the prokinetic drugs currently available. (4)

Animal studies show that when extracts of *Terminalia* were administered following induction of anaphylactic shock, serum histamine levels were reduced, indicating that *Terminalia* may possess a strong anti-anaphylactic action. (11) Indian researchers have also shown that *Aaonla* (*Emblica officinalis*) protected experimental animals when exposed to a variety of biological, physical and chemical stressors. Oral *Emblica* was shown to normalize phagocytic activity, fitting within the definition of an adaptogen. *Emblica* was also found to protect tissues from stress-induced free radical damage, with a strong affinity for cells involved in prostaglandin synthesis. (12). Because *Emblica officinalis* fruit (commonly known as *aaonla*) is the world's richest source of natural vitamin C, researchers have attributed many of its traditional benefits to its antioxidant properties. (13) In one study *aaonla* was found to be more effective than vitamin C in improving lipoprotein values and glucose tolerance.

Volunteers given *aaonla* were compared to controls receiving 500 mg/day of vitamin C. After 8 weeks the *aaonla* group showed significant improvements in lipoprotein serum profiles, including increased HDL, decreased LDL, and lower total cholesterol levels. (14) In addition to vitamin C, researchers at the Bose Institute in Calcutta, India have also isolated a number of tannins in *aaonla* that exhibit potent antioxidant activity. The antioxidant effects of *aaonla* were measured on the basis of their effects on rat brain concentrations of the oxidative free radical scavenging enzymes, superoxide dismutase (SOD), catalase (CAT) and glutathione peroxidase (GPX) and lipid peroxidation. The results were compared with effects induced by deprenyl, a selective mono-amine oxidase (MAO) B inhibitor with well documented antioxidant activity. *Aaonla* and deprenyl both effectively increased SOD, CAT and GPX activity, with concomitant decreases in lipid peroxidation when administered once daily for seven days. These results indicate that the antioxidant activity of *aaonla* may derive from the tannoids of the fruits of the plant, which have vitamin C-like properties, rather than vitamin C itself. (15) .

Indian researchers have shown that extracts of *aaonla* exhibit antitumor activity. Solid tumors induced by DLA (Dalton's lymphoma ascites) cells were reduced significantly when mice were fed either *aaonla* or an herbal preparation containing 50% *aaonla*. *Aaonla* extract was also shown to increase the life span of tumor bearing animals by up to 60%. The researchers theorize that the antitumor activity of *aaonla* may partially be due to its interaction with cell cycle regulation. (16) In addition to the previously reported effects of *aaonla* on normalizing lipid profiles, Indian scientists have reported that flavonoids extracted from *aaonla* exert highly potent hypolipidemic and hypoglycemic activities. Moreover these flavonoids were effective in raising the hemoglobin levels in rats. (17) *Aaonla* has also been shown to possess potent antiatherosclerotic effects. Researchers evaluated the lipid lowering effects of *aaonla* in rabbits fed a cholesterol-rich diet to induce hyperlipidemia. Following 60 days of supplementation with *aaonla*, serum cholesterol, triglyceride, phospholipid and LDL levels were lowered by 82%, 66%, 77% and 90%, respectively.

The researchers also reported a significant reduction in aortic plaque deposits in rabbits treated with *aaonla*, leading researchers to conclude that *aaonla* is "an effective hypolipidemic agent and can be used as a pharmaceutical tool in hyperlipidemic subjects." (18). Studies have shown that *Triphala* supports not only the GI system, but also bolsters a healthy immune and cardiovascular system (21). It positively affects normal cell life cycles (4) and promotes healthy lipid and cholesterol levels (5). *Triphala* has also been shown to have powerful antioxidant effects, protecting cells from the damage of free radicals (22-26). The result is thought to be largely related to the Vitamin C content of the *amalaki* (23-28), believed to be one of the highest concentrations of Vitamin C in any food (1). Other research shows that the Vitamin C may have been misidentified, and the antioxidant effect may be attributed to the tannins/polyphenols unique to the herbs used in making *Triphala* (29). Regardless, it has been shown to produce an antioxidant effect, and in accord with Ayurvedic principles, this is related to the synergistic /wholistic effects of the components of all three fruits

#### 4. Discussion & Conclusion

Literally meaning •three fruits., Triphala is a traditional Ayurvedic herbal formulation consisting of three fruits native to the Indian subcontinent: Amalaki (*Embllica officinalis*), Bibhitaki (*Terminalia belerica*) and Haritaki (*Terminalia chebula*). Assists natural internal cleansing; Gently maintains regularity; Nourishes and rejuvenates the tissues; Supports healthy digestion and absorption; Natural antioxidant. Triphala is most commonly known for its use as a gentle bowel tonic, helpful in digestion and supporting regular bowel movements. The combination of the three fruits has a synergistic effect to bolster many other systems as well. In addition to the GI tract, Ayurveda uses Triphala to support healthy respiratory, cardiovascular, urinary, reproductive, and nervous systems (1). Triphala has also been shown to be a powerful antioxidant, protecting cells from the damaging effects of free radicals (2,3). The three fruits involved in making Triphala are also known for their individual effects (1): Amalaki (*Embllica officinalis*): Has a cooling effect that manages pitta, supporting the natural functions of the liver and the immune system.

Bibhitaki (*Terminalia belerica*): Particularly good for kapha, supporting the respiratory system as well as kapha accumulations in all systems. Haritaki (*Terminalia chebula*): Though having a heating nature, it is still good for all three doshas (vata, pitta, and kapha). Is known for its •scraping, effect, which removes toxins and helps maintain healthy levels of weight. In conditions of excess weight, Triphala can be used as part of a weight loss program that includes a healthy diet and exercise. Proper digestion and elimination are important factors in achieving long term success in maintaining an optimal body weight. Triphala also promotes healthy eating habits and cravings by supplying the body with the full spectrum of natural tastes. By promoting healthy absorption and assimilation of nutrients, Triphala keeps the body feeling properly nourished and balanced. Triphala is recommended and used more often than any other Ayurvedic herbal formulation. It is popular for its unique ability to gently cleanse and detoxify the system while simultaneously replenishing and nourishing it. In Ayurvedic terms, Triphala, used in moderation, is said to have a beneficial effect on all three doshas vata, pitta, and kapha. It is most well-known for its gentle effects on the bowels, improving peristalsis and cleansing toxic build up of wastes; but Ayurveda also views Triphala as a nourishing supplement known for its ability to rejuvenate healthy tissues, allowing one to age gracefully.



The Caraka Samhita, one of the main texts of Ayurveda, describes Haritaki as the remover of disease and promotes Haritaki and Amalaki for ras...yana, or rejuvenation of the body (1,11, 12). Triphala is also traditionally used as a tonic in hair and eye washes. For those with sluggish digestion and build up of ama, triphala is said to kindle the digestive fire (deepana) and help improve digestion (pachana), allowing one to get the most nutrition from one's dietary intake (1). Culturally, Haritaki is given the highest respect for restoring health. The Medicine Buddha is often depicted with a haritaki held in his hand. (1). It is said to give the blessing of long life, and along with amalaki and bibhitaki, will nurture you like a mother (13).

It is important for those of us who are schooled in western medicine to recognize that many of the ancient Chinese and Aryurvedic formulas contain healing potentials that are often qualitatively different from the simple sum of each individual ingredient. Triphala has shown itself to be one such herbal combination. This herbal combination can have profound healing benefits in complex, multi-organ systems. Its role in preventive medicine cannot be minimized. Triphala can be highly effective in removing stagnation of both the liver and intestines. Regardless of any other herbs being used, Triphala can be prescribed singly or adjunctively whenever there are symptoms of inflammation, heat, infection, obesity and other conditions of excess. Because of its combined tonic and eliminative properties, it is generally quite safe to give even for deficiency diseases including anemia, fatigue, candida, poor digestion and assimilation. Unlike other eliminative and cleansing herbs, Triphala may be safely taken for symptoms of wasting heat that frequently accompanies diseases such as tuberculosis, pneumonia and AIDS. It is no wonder that it is one of the best selling formulas in the entire line. Triphala is traditionally taken and works best when taken

as a powder. The average dose is from one to two teaspoons of the powder in a little water once in the evening or three times daily for blood and general body purification. It can also be taken regularly once a week with great benefit since it promotes balanced cleansing and detoxification. The tablets are for convenience since many find the powder too have too unpleasant a flavor for the more spoiled tastes of Westerners. Triphala has been found to be very effective for helping to control weight gain, chronic constipation and as an adjunctive treatment for many chronic degenerative conditions. Ayurveda is a 5,000 year-old healing tradition rooted in ancient Indian culture. This vast body of healing knowledge, sometimes referred to as the "Mother of All Healing", has recently come to the attention of Western medical researchers seeking novel therapeutic compounds.

While screening a number of traditional Vedic formulas scientists discovered that one of the most revered of all Ayurvedic compounds, Triphala, exhibits a number of health benefits, including: Exhibits antioxidant activity; Lowers cholesterol; Normalizes blood pressure; Inhibits HIV; Reduces tumors in animals, and Protects and improves liver function. Healthy digestion requires the coordination of a complex pattern of contracting and relaxing muscles in the stomach and intestines (gastric motility) for proper digestion and absorption of nutrients. Gastrointestinal motility is disrupted when the nerves and muscles of the GI tract fail to function in a strong or coordinated fashion. Motility can be disrupted by stress, inflammation (i.e. Crohn's disease), disease (i.e. muscular dystrophy, systemic sclerosis and amyloidosis) and from use of over-the-counter and prescription medications. Symptoms of motility disorder range from mild cases of heartburn and constipation to more severe problems, such as chronic vomiting, nausea, cramping, bloating, abdominal distention and diarrhea after eating. The most prevalent form of motility disturbance is Irritable Bowel Syndrome (IBS), which fully accounts for 50 % of all patients who go to a GI specialist.[3].

To increase GI muscle contractions and improve gastric emptying, Western doctors often prescribe prokinetic drugs such as Metoclopramide or Bethanechol. When researchers compared the Triphala herb *Terminalia chebula* to prokinetic drugs they found that *Terminalia chebula* increased gastric emptying by 86%, compared to 76% for metoclopramide. Since *Terminalia* is free of side effects, the herb may be a useful alternative to the prokinetic drugs currently available. Recently published studies report that *Terminalia* exhibits antibacterial activity against a number of bacterial species. (5) One group of researchers found that *Terminalia* is effective in inhibiting the urease activity of *Helicobacter pylori* (*H. pylori*), a ubiquitous bacterium implicated in the development of gastritis, ulcers and stomach cancers. (6) Another research team has shown that extracts of *Terminalia chebula* strongly inhibit the growth and adherence of *Streptococcus* (*S. mutans*), a virulent cavity-inducing organism. Oral rinsing with an extract of *Terminalia chebula* was found to significantly reduce both total bacterial counts and streptococcal counts in saliva samples. The protective effect lasted for up to 3 hours after rinsing, demonstrating a potential role for TC in the prevention of dental caries. (7) *Terminalia* has been found to possess antiviral activity.

Researchers have reported that *Terminalia* protects epithelial cells against influenza A virus, supporting the traditional use of *Terminalia* for aiding in recovery from acute respiratory infections. (8) *Terminalia* has also demonstrated therapeutic activity against herpes simplex virus (HSV) in in vivo tests. (9) These findings prompted a team of Japanese researchers to investigate *Terminalia*'s effects on human cytomegalovirus (CMV). They found that *Terminalia* was effective in inhibiting the replication of human cytomegalovirus (CMV) in vitro and in immunosuppressed mice. Stating that "*Terminalia chebula* significantly suppressed MCMV (murine CMV) yields in lungs of treated mice," the researchers concluded that *Terminalia* may be beneficial for the prevention of CMV diseases in immunocompromised patients. (10) Because of its high nutritional content, it's generally do not regard Triphala as a mere laxative. Some of the scientific research and practical experience of people who have used it down through the ages has demonstrated that Triphala is an effective blood purifier that stimulates bile secretion as it detoxifies the liver, helps digestion and assimilation, and significantly reduces serum cholesterol and lipid levels throughout the body. As a result, it is regarded as a kind of universal panacea and is the most commonly prescribed herbal formula. A popular folk saying in India is: "No mother? Do not worry so long as you have Triphala." The reason is that Indian people believe that Triphala is able to care for the internal organs of the body as a mother cares for her children. Each of the three herbal fruits of Triphala takes care of the body by gently promoting internal cleansing of all conditions of stagnation and excess while at the same time it improves digestion and assimilation.

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