

Review on vibration frequency developed by OM chanting and its positive effects on thyroid

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Abstract

According to Thyroid Epidemiological (EPI) Study conducted across metro cities in India, 10% adults in India are suffering from thyroid disorder and women are three times more likely to be affected than men. The course of study reveals that almost 30% of people living with hypothyroidism were not aware of the condition and were diagnosed for the first time. This suggest that most of the people are suffering from thyroid disorders. They do not seek the specific treatment and are unable to deal with thyroid problem. There are many medication procedures to cure this disorder, but owing to the harmful side effects there is need to find an alternative soothing treatment. Yoga, meditation and chanting has been found to lower stress levels by influencing our hormone health or endocrine system and by activating the pituitary and pineal glands.. When you do an inverted pose, gravity directs the blood flow to the neck and the head which stimulates the thyroid glands. It is interesting to know that, even something as basic as chanting OM has an effect on our hormonal system as the thyroid gland respond to the vibrations while chanting. Vibrational frequency plays an important role in the enhancing of our physical health, because it allows potential to prompt itself into any form, including molecules, atoms, biological life and even diseases.

Keywords: *OM chanting, Thyroid, Vibrational frequency.*

1. Introduction

At least 10 % people in India are suffering from thyroid disorder, a study published in Indian Journal of Endocrinology and Metabolism revealed. The study was conducted in metro cities - to study the prevalence of hypothyroidism amid the residents. The coast-to-coast dominance of thyroid disorders, mainly hypothyroidism, was assessed in adults residing in various cities that represent diverse geographical regions of India. Other than hypothyroidism, at least 12 percent people are suffering from other thyroid disease including thyroid surgery. [1] Even as hypothyroidism continues to grow considerably in the country, mostly among women, awareness about the disease and its diagnosis remains shockingly low, a latest study shows.

A recent survey conducted by Indian Thyroid Society (ITS)

depicts awareness for the disease ranked ninth as compared to other common ailments like asthma, cholesterol problem, depression, diabetes, insomnia and heart problem.[2]

The dominance of thyroid disorder in the urbanized world is estimated to be about 4-5%. [3]. Thyroid disorders impair normal working of the thyroid gland affecting anomalous production of hormones leading to hyperthyroidism. If left undiagnosed, hypothyroidism can cause raised cholesterol levels, an increase in blood pressure, cardiovascular complications, decreased fertility, and depression.[2]

Anti-thyroid medication does exist on the market today but the treatment and harmful side effects associated with it are severe. For purpose of overall welfare anti thyroid hormonal replacement medications should be used as a last remedy and often resulting severe problems in the patient. Such medicines prevent and reduce the discharge of thyroxine (T4) and triiodothyronine (T3) hormone from the thyroid gland. Often the medication requires to be continued for long period of time up to years if not lifetime. These medications greatly damage the liver, increase your vulnerability to infections, cause allergic reactions such as skin rashes and in severe cases lead to premature death.

In case a goiter is placing pressure on the throat or the patient is not receptive to other treatments doctors may recommend a thyroidectomy to remove portion of the abnormal thyroid. The procedure is not popular because doctors may accidentally take away too much of the thyroid and damage the vocal cords. Further complications could arise such as destruction to the parathyroid glands, which are situated at the rear of your thyroid and control the level of calcium in your body. In this case the patient would necessity to possibly start thyroid hormone as well as calcium replacement therapy.

Although existing medicine activists the use of hormones, hormone therapy, beta blockers and surgical procedures I personally have found in many cases that the harmful effects lead to prolong anxiety and loss of overall wellbeing. Many practitioners of alternative medicine would recommend grueling all other sources of thousands of years of spiritual healing before modern medicine [5]. Hence in the present work, we are trying to highlight the interrelationship between thyroid disorder and vibrations

due to OM chanting. Om has powerful meaning and significance. The ancient mantra or vibration conventionally chanted at the beginning and end of a yoga class, helps foster a deeper connection to the practice than can be accomplished with rhythmic breathing and physical postures.

An easy method exists, which is effortless to practice and entirely without hazard – simply using the waves of sound produced by your own vocal chords. Different sounds depending on where and what they are to distress can be used. Close your eyes for a moment and say the sacred mantra Om out loud and clear three times and hold the tone as long as possible. Om is pronounced “AAUUMMMMM” and it creates vitalizing vibrations all through your body – especially in your lungs, heart, neck, jaw, tongue and brain. You may also generate a long and soft which produces similar oscillations and has an immediate soothing effect. [6]

2. Functioning of Thyroid Gland:

The Thyroid gland is one of the major endocrine glands in the body. It is positioned on the neck just below the Larynx and has two lobes with one on each side of the trachea. Figure 1 shows the structure and location of thyroid gland. It is convoluted in the production of the hormones T3 (triiodothyronine) and T4 (thyroxine). These hormones rise the metabolic activity of the body’s cells. The thyroid also produces and discharges the hormone calcitonin (thyrocalcitonin) which supports to the control of blood calcium levels. Thyrocalcitonin or calcitonin shrinkages the concentration of calcium in the blood. Most of the calcium unbiased from the blood is stored in the bones.

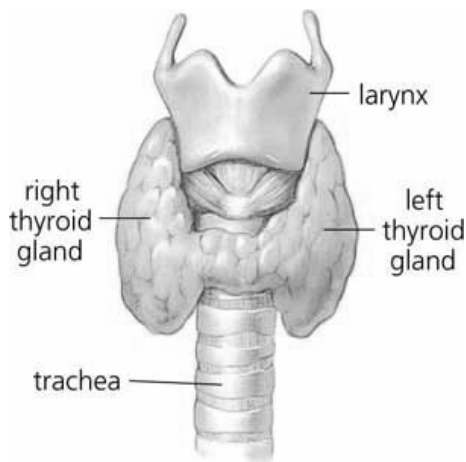


Figure 1: Structure of Thyroid Gland

The thyroid hormone has two components, thyroxine and iodine. This hormone speeds up the metabolism of most of the body cells. Low intake of iodine in the diet leads to the enlargement of the thyroid gland, known as a simple goiter. Hypothyroidism during initial development leads to

cretinism. Cretinism is a condition of severely stunted physical and mental growth due to untreated genetic deficiency of thyroid hormone (congenital hypothyroidism) usually due to maternal hypothyroidism. In adults, it develops myxedema, characterized by obesity and laziness. Hyperthyroidism results to a condition known as exophthalmic goiter, which leads to weight loss as well as hyperactive and irritable behavior.

The thyroid gland is a two-lobed gland that expresses a remarkably powerful active transport mechanism for absorbing iodide ions from the blood. As blood passes through the gland, iodide is converted to an active form of iodine. This iodine mix with an amino acid called tyrosine. Two molecules of iodinated tyrosine then combine to form thyroxine. Following its development, the thyroxine converts to a polysaccharide-protein material called thyroglobulin. The normal thyroid gland may stock several weeks supply of thyroxine in this bound form. An enzymatic splitting of the thyroxine from the thyroglobulin occurs when a precise hormone is released into the blood. This hormone, produced by the pituitary gland, is known as thyroid-stimulating hormone (TSH). TSH stimulates definite major rate-limiting steps in thyroxine secretion, and thereby modifies its rate of release. A variety of bodily defects, either dietary, hereditary, or disease induced, may decrease the amount of thyroxine released in blood. The most popular of these defects is one that results from dietary iodine deficiency. The thyroid gland expands, in the continued presence of TSH from the pituitary, to form a goiter. This is a futile attempt to produce thyroid hormones, for iodine levels that are too low. Normally, thyroid hormones act via a negative feedback loop on the pituitary to moderate stimulation of the thyroid. In goiter, the feedback loop cannot be in process hence continual stimulation of the thyroid and the predictable protuberance on the neck. Formerly, the principal source of iodine got from seafood. As a result, goiter was prevalent amongst inland areas far removed from the sea. Today, the prevalence of goiter has been drastically reduced by adding iodine to table salt.

Thyroxine works to stimulate oxidative metabolism in cells; it increases the oxygen consumption and heat production of most of the body tissues, a notable exception being the brain. Thyroxine is also necessary for normal growth. The most likely explanation is that thyroxine promotes the effects of growth hormone on protein synthesis. The absence of thyroxine significantly decreases the ability of growth hormone to stimulate amino acid uptake and RNA synthesis. Thyroxine also plays a crucial role in the organ development, particularly that of the central nervous system.

If there is an insufficient amount of thyroxine, it results in hypothyroidism. Symptoms of hypothyroidism is a

reduction in the rate of oxidative energy-releasing reactions within the body cells. This leads to puffy skin, sluggishness, and lowered vitality in the patient. Weight gain, decreased libido, inability to tolerate cold, muscle pain and spasm, and brittle nails, these are the other symptoms of hypothyroidism. Hypothyroidism in children, is a condition of cretinism, can result in mental retardation, dwarfism, and permanent sexual immaturity. Sometimes the thyroid gland forms too much thyroxine, a condition known as hyperthyroidism. An abnormally high body temperature, profuse sweating, high blood pressure, loss of weight, irritability, and insomnia, these are symptoms produced by hyperthyroidism, muscular pain and weakness. It also causes the typical symptom of the eyeballs protruding from the skull called exophthalmia. This is surprising because it is not a symptom usually related to a fast metabolism. Hyperthyroidism has been treated by partial removal or by partial radiation destruction of the gland. More recently, several drugs that inhibit thyroid activity have been discovered, and their use is replacing the former surgical procedures. Unfortunately thyroid conditions require lifetime treatment and because of the body's need for a sensitive balance of thyroid hormone both supplementing and suppressing thyroid function can take months or even years to regulate.

2.1 T3 and T4 Function within the body

The Production of T3 and T4 are regulated by thyroid stimulating hormone (TSH), released by the pituitary gland. TSH Production is increased when T3 and T4 levels are too low. The thyroid hormones are released throughout the body to direct the body's metabolism. They stimulate all cells within the body to work at a better metabolic rate. Without these hormones the body's cells would not be able to regulate the speed at which they performed chemical actions. Their release will be increased under certain situations such as cold temperatures when a higher metabolism is needed to generate heat. When children are born with thyroid hormone deficiency they have problems with physical growth and developmental problems. Brain development can also be severely impaired.

2.2 The significance of iodine

Thyroid hormone cannot be produced without an abundant source of iodine. The iodine concentration within the body, although significant, can be as little as 1/25th the concentration within the thyroid itself. When the thyroid is low on iodine the body will try harder to produce T3 and T4 which will often result in a swelling of the thyroid gland, resulting in a goiter.[7]

2.3 Disorder of the Thyroid Gland

The thyroid gland produces two related hormones, thyroxine (T₄) and triiodothyronine (T₃) (Figure 2). Acting through thyroid hormone receptors α and β , these hormones play a critical role in cell differentiation during development and help maintain thermogenic and metabolic homeostasis in the adult. Autoimmune disorders of the thyroid gland can stimulate overproduction of thyroid hormones (thyrotoxicosis) or cause glandular destruction and hormone deficiency (hypothyroidism). In addition, benign nodules and various forms of thyroid cancer are relatively common and amenable to detection by physical examination.

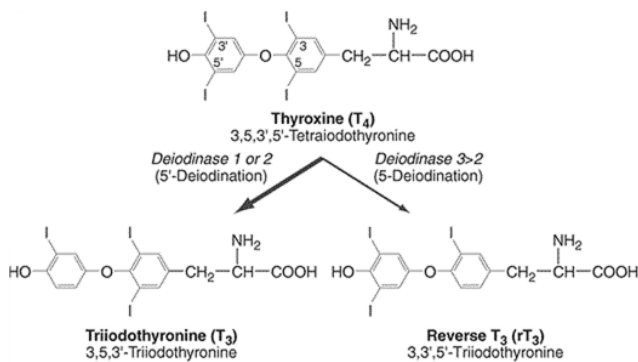


Figure 2: Structures of thyroid hormones

Thyroxine (T₄) contains four iodine atoms. Deiodination leads to production of potent hormone (T₃), or the inactive hormone reverse T₃.

The normal thyroid is 12–20 g in size, highly vascular, and soft in consistency. Four parathyroid glands, which produce parathyroid hormone are located posterior to each pole of the thyroid. The recurrent laryngeal nerves traverse the lateral borders of the thyroid gland and must be identified during thyroid surgery to avoid injury and vocal cord paralysis. The thyroid gland develops from the floor of the primitive pharynx during the third week of gestation. The developing gland migrates along the thyroglossal duct to reach its final location in the neck. This feature accounts for the rare ectopic location of thyroid tissue at the base of the tongue (lingual thyroid) as well as the occurrence of thyroglossal duct cysts along this developmental tract. Thyroid hormone synthesis normally begins at about 11 weeks' gestation.

Neural crest derivatives from the ultimobranchial body give rise to thyroid medullary C cells that produce calcitonin, a calcium-lowering hormone. The C cells are interspersed throughout the thyroid gland, although their density is greatest in the juncture of the upper one-third and lower two-thirds of the gland. Calcitonin plays a minimal role in calcium homeostasis in

humans but the C-cells are important because of their involvement in medullary thyroid cancer.

Thyroid gland development is orchestrated by the coordinated expression of several developmental transcription factors. Thyroid transcription factor (TTF)-1, TTF-2, and paired homeobox-8 (PAX-8) are expressed selectively, but not exclusively, in the thyroid gland. In combination, they dictate thyroid cell development and the induction of thyroid-specific genes such as thyroglobulin (Tg), thyroid peroxidase (TPO), the sodium iodide symporter (Na⁺/I, NIS), and the thyroid-stimulating hormone receptor (TSH-R). Mutations in these developmental transcription factors or their downstream target genes are rare causes of thyroid agenesis or dysmorphogenesis, though the causes of most forms of congenital hypothyroidism remain unknown [8].

2.4 Symptoms of Irregular Thyroid

Hyperthyroidism

Increased BMR.

Increased appetite but loss of weight.

Increased Heart rate (palpitations).

Excess sweating. Moist skin.

Diarrhea (for unknown cause).

Frequent and short menstrual cycle. Also to some extent is lack of menstruation.

Restlessness (Physical & Mental) which leads to irritability and violence.

Intolerant to heat.

Protruding eyes and also may have double vision.

Hypothyroidism

All the symptoms seems in hyperthyroidism is reverse in hypothyroidism.

Decreased BMR and Heart rate (Bradycardia).

Abnormal weight gain.

The person suffers from constipation.

Irregular menstruation. The ovum production is stopped or sometimes menses without ovum.

Mentally depressed, lethargy, slowness in everything.

Urine output is reduced as the kidney function is affected.

The skin is dry with no perspiration (sweating).

The person is cold intolerance.

The body reflexes are slows down as the functions of nervous system slows down. [9]

TREATMENT & ITS LIMITATIONS

Beta-blockers are used to decrease symptoms of hyperthyroidism such as heart palpitations, anxiety, tremors and anti-thyroid drugs are used to decrease the production of thyroid hormones.

These medications take several months to take full effect and have side effects such as skin rash or a drop in white blood cell (WBC) count, which decrease the ability of the body to fight off infections.

Due to the side-effects and inconvenience of such drug regimens, some patients choose to undergo radioactive iodine-131 treatment.

Hyperthyroidism as well as thyroid tumors may be treated with radioactive iodine-131, which is administered in order to destroy a proportion of, or the entire thyroid gland which causes hypothyroidism.

Hypothyroidism is the underproduction of T₃ and T₄, treated with hormone replacement therapy, such as levothyroxine, which is typically required for the rest of the patient's life.

Thyroid cancer may require surgery include thyroidectomy, lobectomy and tracheostomy. Sometimes even the removal of the thyroid itself.

If the thyroid gland is removed, care must be taken to avoid damage to the adjacent structures, the parathyroid glands and the recurrent laryngeal nerve. [9]

Vibration Frequency and Thyroid:

The above literature review reveals that thyroid disorder found in majority of people and the medication and clinical treatment available for the same are found to be some how risky to human being. Hence this study is an effort to find an alternative treatment method. We have come across interesting literature which gives effective solution to minimize thyroid disorder.

An easy method exists, which is effortless to practice and entirely without risk – simply using the waves of sound produced by your own vocal chords. Different sounds depending on where and what they are to affect can be used. Close your eyes for a moment and say the sacred mantra Om (or Aum) out loud and clear three times – and hold the tone as long as possible. Om is pronounced “AAUUMMMMM” and it creates vitalizing vibrations throughout your body – especially in your lungs, heart, neck, jaw, tongue and brain. You may also generate a long and soft Amen which produces similar oscillations and has an immediate soothing effect.

In 1992, Bruce Tainio of Tainio Technology, an independent division of Eastern State University in Cheny, Washington, built the first frequency monitor in the world. Tainio has determined that the average frequency of the human body during the daytime is 62-68 MHz. A healthy body frequency is 62-72 MHz. When the frequency drops, the immune system is compromised. Check out these very interesting findings: [10]

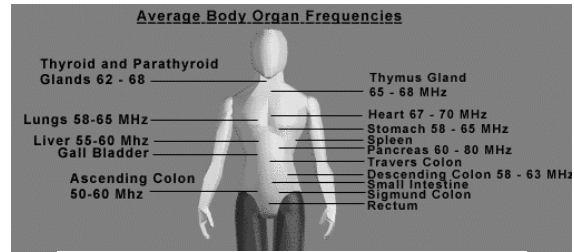


Figure 3: Average Body Organ Frequencies

The natural humming energy of Om exists all around us. Om vibrates at the frequency of 432 Hz, which is the same frequency as everything in nature.[11]

Useful sounds that are particularly beneficial to the body is a clean “A” or “O” sound which will make the chest, sternum and neck vibrate. Vibrations in the sternum will stimulate the immune system because the oscillations boost the thymus, a small gland in the chest which controls the production of the body's key defense cells called T lymphocytes. The thymus becomes smaller and smaller with age and almost disappears in the end. Some researchers even believe that different infections and cancers in old people are closely linked to the decline in T lymphocyte production. Hence, if you were to stimulate the thymus in some way e.g. through prayer or song, it is sure to be advantageous. Elderly people as well as ill people following a treatment need a strong immune system.

Vibrations in the throat will stimulate another important gland, the thyroid. This gland produces hormones that regulate metabolism and thus the body's energy consumption and body weight. In addition, it also assists in strengthening heart function. Apart from the fact that you can stimulate this gland to some extent with vibrations, a combination of generating sounds and using the yoga shoulder stand, can create additional stimulation. This is partly due to an increased blood flow to the neck and head, and secondly, because the natural Throat Lock that this posture creates increases the pressure in the thyroid, giving it a gentle massage.

Located on the thyroid gland are some small glands (parathyroid) that produce a hormone (PTH) which can increase the amount of calcium in the blood. Vibrations can to some extent stimulate these glands, but with a combination of sounds and a simple yoga pose such as the shoulder stand, stimulation can be increased further, because blood flow is increased and because the throat lock increases the pressure in the thyroid.

Chanting of Omkar is one of the best effective treatments for thyroid problems. The vibration from the vocal cards affects the thyroid directly and regulates and stimulates its function.

Regular Om chanting for 15 – 30 minutes gives a good progress. Also listening to Om chanting throughout night is very effective. This vibration throughout the head also stimulates pituitary and hypothalamus to function effectively.

Yoga nidra helps to relieve the stress and tension from the mind, which is the root cause of thyroid disorders. Once a day is recommended.

Accidental laceration of either of the two or both recurrent laryngeal nerves may cause paralysis of the vocal cords and their associated muscles, changing the voice quality.

Conclusion:

When you recite OM mantra, you touch the palate with your tongue. In the palate, there are 84 meridian points, 64 in the hard palate and 20 in the soft palate. This vibration goes from the hypothalamus, the one that directs the actions of the pituitary gland, and governs the endocrine systems, or, the one in charge of releasing chemicals and hormones throughout the body, to the brain. This vibration (frequency) releases chemical hormones that balance the body, and have healing effects, emotional effects, and effects on one's well being. Health is the God's gift to each and every one. Using the intellect we have to maintain it properly till the end of our life. One should understand the basic mechanism of body and mind in order to keep it effectively and peacefully. Also understanding the connection between body and mind, role of prana, interconnection of chakra and endocrine system helps to lead a successful happy life. "Health is Wealth. Peace of mind is happiness, Yoga shows the way".

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