

**METHOD OF UJJAYI PRANAYAMA IN THE MANAGEMENT OF HYPOTHYROIDISM****Dr. Dinesh Ram<sup>\*1</sup>, Dr. Sandeep S. Kamble<sup>2</sup>, Dr. Rachana Jain<sup>3</sup> and Dr. Rajeev Kumar Sharma<sup>4</sup>**<sup>1</sup>Assistant Professor, Department of Swasthavrit & Yoga, S.R.T. Ayurvedic Medical College & Hospital, Karjara (Gaya).<sup>2</sup>Associate Professor, PhD(Sch.), Department of Kayachikitsa, YCAMC, Aurangabad.<sup>3</sup>Professor & H.O.D., Department of Swasthavrit & Yoga, Rani Dullaiya Smriti Ayurveda P.G. College & Hospital, Bhopal.<sup>3</sup>Assistant Professor, Department of Kaumarbhritya/ Balroga, S.R.T. Ayurved Medical College & Hospital, Karjara (Gaya).**\*Corresponding Author: Dr. Dinesh Ram**

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Article Received on 15/06/2020

Article Revised on 05/07/2020

Article Accepted on 26/07/2020

**ABSTRACT**

Thyroid disorders are one of the most common endocrine disorders in the world. The thyroid gland is responsible for the body's metabolism, protein production, and calcium level balance in the body. Disease in thyroid gland arises due to irregular levels of thyroid hormones. Hypothyroidism is due to under activity of thyroid gland and decreased levels of thyroid hormones. It is a quite common disease and can occur at any age. For hypothyroidism, most of the patients are ultimately rendered with the lifelong supplementation of synthetic thyroid hormones. Ayurvedic treatment can be an ideal way to get rid of daily hormone supplementation. The Ayurvedic approach towards hypothyroidism has become an effective and popular way as it does not depend on synthetic drugs and so has no side effects. Yoga breathing exercises, called Pranayama in Sanskrit, are an important part of developing a Yoga practice. According to the Yoga Sutras, Pranayama is one of the classical eight limbs of Yoga. Ujjayi Pranayama is one technique that helps calm the mind and warm the body. The current study was conducted to determine the effect of practicing Ujjayi Pranayama on Hypothyroidism in Adults.

**KEYWORDS:** Ayurveda, Hypothyroidism, Pranayama, Ujjayi Pranayama, Yoga.**INTRODUCTION**

Hypothyroidism slows down the body and weight gain along with lethargy is its most typical symptom. It results in high cholesterol, intolerance to cold, hair loss, skin & hair dryness, slowed breathing, puffiness in eyes & face, swelling of hands & feet, and heart disease. It may also result in mental stress, makes the body more prone to infections, decreased brain functioning, skin depigmentation, reduced blood glucose levels, and menstrual problems in women. Such life-threatening ailments should be cured entirely rather than relieving symptoms momentarily.

Hypothyroidism is caused by limited activity of thyroid gland, which primarily regulates metabolism. The major causes of hypothyroidism are lack of iodine, functional disabilities of thyroid gland, and allergies to certain medication, among others. The symptoms of hypothyroidism are slow metabolism, loss of hair, dryness of skin, loss of memory, and irritability. One of the ways to compliment hypothyroidism treatment is to practice yoga.

Pranayama for hypothyroidism is one of the most recommended breathing exercises to relieve the symptoms of the condition. It relieves the inflammation of thyroid gland and also revert the negative effect of certain medications that cause hypothyroidism. Pranayama includes Anulom Vilom (Alternate Nostril Breathing), Kapalhati (Cleansing Breath), and Ujjayi (Ocean Breath). The word "Ujjayi Pranayama" made from the Sanskrit prefix "ud" and "Ji": "ujji", Ujjayi, which means "Victory", "one who is victorious". Thus the Ujjayi breath means "victorious breath". In this breathing exercise, the process of Inhalation (breath in) and exhalation (breathe out) are both done through the nostrils. During the process of Inhalation (breath in or Poorak) the "ocean-like sound" is formed by moving the glottis as air passes in and out.

The sound is produced because of the friction of air within the throat; a typical sound like the ocean is made. (The sound is completely different from the sound emitted from the larynx) thence, the Pranayama is termed as Ujjayi Pranayama. By this, it is also called "Sound Breath" or "Ocean sound breath".

As the throat passage is narrowed thus, too, is that the airway, the passage of air through that creates a “rushing” sound. The length and speed of the breath are controlled by the diaphragm, the strengthening of that is, in part, and the aim of Ujjayi Pranayama. The inhalations and exhalations area unit equal in a period, and the area unit controlled in a very manner that causes no distress to the professional person. Ujjayi Pranayama helps to equalize and calming the breath that will increase the action of oxygenation and build internal body heat.

### Hypothyroidism

Hypothyroidism is defined as a clinical state resulting from insufficient secretion of the thyroid hormone from thyroid gland due to some of the structural or functional impairment of the thyroid hormone production. The thyroid gland is located inside the neck, just below adam’s apple. It produces two thyroid hormones, triiodothyronine (T3) and thyroxine (T4), which regulate the body metabolic rate. There are intricate feedback mechanisms between the thyroid and anterior pituitary, hypothyroidism is classified as primary when thyroxin (T4) and triiodothyronine (T3) levels are low but levels of thyroid stimulating hormone (TSH) secreted by anterior pituitary high. It is classified as secondary when TSH is low and T4 and T3 levels are high.

Hypothyroidism presents a large epidemiological burden in India. Imbalance in production of thyroid stimulating hormone (TSH), or hypothalamus, which regulates the pituitary gland via thyrotropin releasing hormone (TRH). Thyroid disorders can range from a small, harmless goiter (enlarged gland) that needs no treatment to life threatening cancer. The most common thyroid problems involve abnormal production leads to hypothyroidism. As a result of subtle and non specific clinical symptoms and signs, the condition often go undiagnosed and are not adequately treated when it is detected. There is heterogeneity in the diagnostic and treatment approaches to hypothyroidism. As a result of the physiological changes in thyroid hormones with age and illness, it is important to tailor the diagnosis and management of this condition in specific populations including women, infants, children, geriatric patients, and those with comorbid conditions.

### Etiology

Hypothyroidism results when the thyroid gland fails to produce enough hormones, the balance of chemical reactions in the body can be upset and have an enormous impact on health, affecting all aspects of metabolism. These hormones also influence the control of vital functions, such as body temperature and heart rate. There can be a number of causes, including autoimmune disease, hyperthyroidism treatments, radiation therapy, thyroid surgery and certain medications.

### Causes

- Lack of iodine
- Functional disabilities of thyroid gland

- Allergies to certain medication

### Clinical Features

Hypothyroidism signs and symptoms may include:

- Fatigue
- Increased sensitivity to cold
- Constipation
- Dry skin
- Weight gain
- Puffy face
- Hoarseness
- Muscle weakness
- Elevated blood cholesterol level
- Muscle aches, tenderness and stiffness
- Pain, stiffness or swelling in your joints
- Heavier than normal or irregular menstrual periods
- Thinning hair
- Slowed heart rate
- Depression

### Ayurvedic Palliative Therapy

Palliative therapy herbs and their preparations are used which stimulates suppressed digestive fire as well as digests & clears the Ama i.e.; toxins build up in the body due to indigestion. Ayurvedic herbs like Indian pennywort, Orchid tree, Indian costus root, Guggulu gum, Indian elecampane, Crataeva nurvula winter cherry, willow bark, prickly chaff flower, water hyacinth, flaxseed, cassia tree, ginger are beneficial in raising thyroid levels as well as reduce the associated symptoms. Take these herbs in the form of their extract juices, paste, decoctions, or as extract pills. Herbal preparations like Pancakola powder, Vaishwanara powder, Guggulu Tiktaka Kwatha, Varunadi Kwatha, Kanchanara Guggulu, Navaka Guggulu, Guggulu Tiktaka ghee, Shiva Gutika, Punarnava Mandura are suggested in hypothyroidism. Most of these herbs are of heating nature as they decrease the aggravated Kapha Dosha and helps in losing extra weight. So such herbs and their preparations should be used in proper dosage and with an appropriate diet to preserve the body energy.

### Effect of Yoga and Pranayama on Hypothyroidism

Yogic disciplines involving Pranayama claimed to have very good effect on Thyroid function, thus creating psychic and somatic equilibrium of the bodily functions. Pranayama in actuality is regarded as the science of controlled as well as conscious expansion of the Prana representing the life force. The practice of Pranayama helps in facilitating the therapeutic potential for several systemic complications. The study conducted on Diagnosis and Management of Hypothyroidism states that hypothyroidism presents a large epidemiological burden in India. As a result of subtle and non specific clinical symptoms and signs, the condition often goes undiagnosed and is not adequately treated when it is detected. There is heterogeneity in the diagnostic and treatment approaches to hypothyroidism. As a result of the physiological changes in thyroid hormones with age

and illness, it is important to tailor the diagnosis and management of this condition in specific populations including pregnant women, infants, children, geriatric patients, and those with comorbid conditions. Enhanced understanding and education of physicians and patients can help to improve the outcomes of treatment in hypothyroidism which should be focused on patient - centered care. Policies and reforms should be crafted and implemented at the national level to curb public health challenges of hypothyroidism. This publication summarizes the recommendations of a national advisory board meeting to identify and bridge the gaps in understanding of the diagnosis and treatment of hypothyroidism in India. As a complement to clinical judgment, these recommendations will foster the diagnosis and management of hypothyroidism in the community and clinics for the benefit of the patients.

### Yoga for Hypothyroidism

Yoga is believed to rejuvenate the body, mind, and soul. Ayurveda recommends many Yogic Asanas (postures) to regulate thyroid levels. Performing following Yoga poses on a regular basis are proven to be very beneficial in treating hypothyroidism

- Sarvangasana
- Halasana
- Matsyasana
- Naukasana
- Surya Namaskar
- Surya Bhedana
- Anuloma-Viloma
- Ujjayi Pranayama

### Ujjayi Pranayama – the Psychic Breath

Ujjayi Pranayama or the psychic breath soothes the mind and induces a meditative state. Ujjayi means to 'lift up'. In Ujjayi Pranayama, the chest is slightly lifted up as if the inhalation is done from the throat. Ujjayi Pranayama is mentioned in the yoga text Hatha Yoga Pradeepika and in the Gheranda Samhita. Ujjayi involves a deep inhalation from both nostrils with a half closed glottis, so that a faint hissing snoring sound is made during the inhalation. Then there is retention of breath followed by exhalation. Those suffering from heart ailments and blood pressure problems should avoid Kumbhaka or retention of breath. This practice should be learnt from a qualified Yoga instructor.

### Method of Ujjayi Pranayama

- Sit in any meditative pose like Padmasana (Lotus pose) with eye closed and try to keep your spine erect.
- Take a long, deep breath slowly from both the nostril (inhale or breath in).
- While breath in trying to contract the throat and feel the touch of air in your throat.
- Remember one thing air should not touch inside the nose.

- As air touches the throat a peculiar sound is produced.
- Enable the breath to be light and relaxed as you slightly contract the rear of your throat, making a gentle hissing sound as you inhale and out. The sound isn't forced; however, it ought to be loud enough so if somebody came near you they'd hear it.
- Now breathe out by closing your right nostril and exhale from the left nostril. Try to produce the sound 'HHHHHAAAA' while exhaling.

There is one another technique for Ujjayi Pranayama. In the third technique apply Bandha's with breath-holding. First of all attempt Ujjayi Pranayama in a simple way then try with Kumbhaka and at last if you are master in doing Ujjayi with Kumbhaka then go for Bandha's in Ujjayi Pranayama.

### Benefits of Ujjayi Pranayama

- It boosts the focusing power of the mind.
- The body becomes healthy, strong and lustrous.
- It generates internal heat.
- Gives a positive attitude.
- Very helpful in clearing blocked arteries regulates cholesterol.
- Helps in cataracts and sinus problems, Rheumatism and migraine also.
- It lowers the risk of heart attacks.
- Prevents thyroid problems and makes voice sweet and melodious.
- Best for those people who are in the singing profession.
- Beneficial in chronic cold, cough, indigestion, liver problems, dysentery, fever and other diseases.
- Best for arousing Kundalini, meditation.
- Increases the concentration power.
- Improve lisping problems in children.
- Very helpful in Asthma problems and other respiratory diseases.

### Best Time for Doing Ujjayi Pranayama

- Early in the morning or evening time.
- Before doing meditation.
- Do Ujjayi Pranayama for 3 to 5 times.

### Physiological Importance of Ujjayi Pranayama

Breathing through the nose humidifies the indrawn air, tempers it and removes mud particles. Exploitation Ujjayi Pranayama permits you to breathe clean air. The murmuring Ujjayi Pranayama sound causes the bronchi to vibrate subtly, activating the ciliate epithelial tissue. Mud particles will be far from the lungs during this method. Throughout traditional respiratory, the pressure on the bronchi throughout exhalation is sort of modesty. Ujjayi Pranayama maintains steady pressure within the bronchi, even throughout the exhalation. This counteracts the collapsing of the smaller bronchi, permitting the exhalation to be swollen and also the quantity of residual air within the lungs to be reduced.

This respiratory technique is very helpful for those that suffer from chronic hindering respiratory organ conditions or bronchial asthma.

## CONCLUSION

Ayurveda attempts to treat a disease from its root rather than treating only symptoms and providing momentary relief. Knowledge of Agni, Dosha, Dhatu, Prakriti, and resorting to cleansing measures in different seasons can prevent thyroid disorders. Hypothyroidism brings a lot of mental as well as physical stress. Herbal remedies, Panchakarma procedures, Ayurvedic dietary, and lifestyle changes are an ideal way to cure hypothyroidism and restore health completely. Pranayama for hypothyroidism is one of the most recommended breathing exercises to relieve the symptoms of the condition. The study concluded that yoga is valuable in helping the hypothyroidism patient to manage their disease related symptoms.

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