

CRITICAL STUDY OF BHRAMARI PRANAYAMA A REVIEW

ARTICLE

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ABSTRACT

Bhramari Pranayama (Bee Breath) is a breathing exercise; it is also known as humming (black Indian bee) sound of bee. *Ashatang Yoga* is eight limb of the Yoga as described in *Yoga Sutra* by maharishi patanjali. And *Pranayama* is one of the fourth branch of *Ashatang yoga*. (*Yama Niyama Aasana Pranayama Pratyahara Dyana Dharana Samadhi*). My present review article is regarding *Bhramari Pranayama*. *Bhramari Pranayama* is one of the type of pranayama as described in *Hath Yoga Pradipika* and *Gheranda Samhita*. *Bhramari Pranayama* is beneficial in human being and it is useful for physical and mental health. Regular exercise of *Pranayama* (breathing technique) will result in to calm body and mind, by making them stress free and happy. *Bhramari Pranayama* is effective in instantly cooling down the brain and making them free from the agitation, frustration, anxiety, and anger. It is a simple technique we can do anywhere, at home or at work place also. It is the very simple way to release our stress gratefully.

Keywords Ancient literatures, *Bhramari Pranayama*, *Gheranda Samhita*, *Hath Yoga Pradipika*

INTRODUCTION: Aim of this article is to do critical study of the *Bhramari Pranayama*. Uses of *Bhramari Pranayama* since decades to the present era have shown drastic changes in day to day life style if practiced regularly in correct manner. And also to see the effect of *Bhramari Pranayama* on various disorders.

Pranayama is one of the fourth limbs of *Ashatang yoga*¹. And *Bhramari Pranayama* is the type of *Pranayama* as described in both – *Hath Yoga Pradipika*² (*Suryabhedana*, *Ujjayi*, *Sheetkari*, *Sheetali*, *Bhastrika*, *Bhramari*, *Murccha*, *Plavini* and *Gheranda Samhita*³ (*Sahita*, *Suryabhedana*, *Ujjayi*, *Sheetali*, *Bhastrika*, *Murccha*, *Kevali*.)

In *Hath Yoga Pradipika* during *Bhramari Pranayama* one has to inhale quickly

(*Puraka - inhalation*) while making the sound of a male bee and exhale slowly (*Rechaka - exhalation*), creating the sound of a female bee. By following this practice regularly, the yogi can reach the highest spiritual state and experience bliss².

In *Gheranda samhita* *Bhramari Kumbhaka* (*retention*) is done very slowly and the *Rechaka* (*expiration*) is done calmly with humming sound. Which to be able to hear the sounds, one has to have the guidance of a *guru* and be able to withdraw the senses within. That time our mind will experience **so-ham** means I am the Bhramha and the Aananda will be achieved. Is the initial step that leads one to be *Pratyahar* or withdrawal of senses, to be able to hear the *Ananadnaad*, and reach the highest spiritual condition³.

Indian ancient culture has been given us grace in the form of *ayurvediya dincharya*, *Ritucharya*, *SadvrittaPalan*, *Achararasayana* that will improves our health and maintain it as well. The origin for all traditional and classical powers like *yoga*, *asana*, *pranayama*, meditation, *dhyana*, *dharana*, *Samadhi* are seen in *Ramayana*, *Mahabharata*. *Bhagavad Gita* is also known as *Yoga psychology*⁴.

In present study we have covered almost part of *Bhramari Pranayama* like definition, historic outlook of cultural *Yoga* and *Pranayama*, indications, contraindication, benefits, classical and modern method, anatomy and physiology of *Bhramari Pranayama*. And described in short about *Bhramari Pranayama* under a single article. So that researcher can get more and more information about *Bhramari Pranayama* in a single article. I thought it is the simplest way to study about *Bhramari Pranayama* and get all knowledge regarding the study.

Plan of study is to collect the available ancient literatures, research articles, studies on *Bhramari Pranayama* and present it in a very brief and useful manner under a one article so it will be easy to every researcher to get all information

about *Bhramari Pranayama* for present era in single article. In all previously published studies on *Bhramari Pranayama* we get that specific condition or disorder in which that researcher described *Bhramari Pranayama*. So we decided to cover almost everything about *Bhramari Pranayama* under a single article. We studied articles on *Bhramari Pranayama* since 1980 to 2018 and presented this work.

MATERIALS AND METHODS

Materials and methods used are literature available on *Bhramari Pranayama*, *Yoga*. All text books like essence of *Pranayama*, Anatomy and physiology of *yogic* practice etc on *Yoga* and *Pranayama*. *Samhitas* like *Hath Yoga Pradipika* and *Gheranda Samhita*. All previously published article on *Bhramari Pranayama* from internet searching. Which we can collect and studied to present this article. Definition of *Yoga* seen in books 600 BC. *Yoga* is the oldest art in our history, and postures of dance, poses of old statues which we can see in Ellora caves dating from 600 – 1000 BCE. Now same postures are been taught in classical dance classes. *Pranayama* is introduced later on in *Patanjali Yoga Sutra*⁵.

Table -1 The Yoga History Time Line Shows⁶

<i>Vedic period (samhita, mantras)</i>	1800 – 1000 BCE
<i>Mahabharata (Bhagavad-Gita)</i>	1000 – 500 BCE
<i>Buddhism, Jainism</i>	800 BCE
<i>Upnishadas (puranic period)</i>	600 BCE
<i>Ramayana</i>	500 – 300 BCE
<i>Patanjali yoga sutra</i>	200 BCE – 200 CE
<i>Hath yoga pradipika</i>	1450
<i>Gherand samhita</i>	1650

Classical Yoga

Patanjal Yoga Sutra⁷

*“Tasmin sati shwasa prashwasa yorgati
vicchedaha pranayamaha”*

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In that state of being in asana or posture, breaking the movement of aspiratory or expiratory

Since 500BC the great sage *Patanjali* wrote *Yoga sutras* and described *Ashtang yoga*. *Patanjali yoga sutra* is divided in four *Sanskrit pada*,

1. *Samadhi pada*(on being absorbed in spirit – 51 verses)
2. *Sadhana pada*(on being immersed in spirit – 55 verses)
3. *Vibhuti pada*(on supernatural abilities and gifts – 56 verses)
4. *Kaivalya Pada*(on absolute freedom – 34 verses)

Sadhana pada includes *yama* (universal ethics), *niyama* (individual ethics), *asana* (physical posture), *pranayama* (breath control), *pratyahara* (control of senses), *dharana* (concentration), *dhyana* (meditation), *Samadhi* (bliss)⁷. Also explained the process and systematic analysis of practical methods for mind,

Table-2 Definition of Bhramari Pranayama According to Hathyoga Pradipika⁸

<i>Ghosham</i> – Sound
<i>Vegat</i> – Having Louder
<i>Purakam</i> –Inhalation
<i>Bhrunganadam</i> – Sound of male bee
<i>Bhrhinginadam</i> – Sound of female bee
<i>Rechakam</i> – Exhalation
<i>Mandamandam</i> – Slowly slowly
<i>Yogindranam</i> – Best yogi
<i>Evan</i> – In this way
<i>Abhyasyogat</i> – As result of practice
<i>Chitte</i> – In the mind of
<i>Jata</i> – Is produce
<i>Kachid</i> -A peculiar type of
<i>Anandalila</i> – Blissful experience

***GHERANDA SAMHITA*⁹**

Anilam mandavegen bhramari kumbhakam charet
Mandam virechayet vayum bhrunganadam tato bhavet

intellect, quality of consciousness. As *pranayama* is fourth branch of *ashatang yoga*. To keep our body and soul in peace, the controlled breathing technique of *pranayama* under expert guidance is to be performed

***HATHA YOGA PRADIPAKA*⁸**

Vegat ghosham purakam bhrunganadam Bhrhinginadam rechakam mandamandam
Yogindran amevam abhyasyogat
Chittejata kachid anandalila

Verse 68: Chapter 2

The *Hath Yoga Pradipika* describes *Bhramari Pranayama* a little differently. It states that in *Bhramari Pranayama*, one has to inhale quickly (*puraka* -inhalation) while making the sound of a male bee and exhale slowly (*rechaka* -expiration), creating the sound of a female bee. By following this practice regularly, the yogi can reach the highest spiritual state and experience bliss⁸

Antastham bhramarinadam shrutva tatra mano nayet
Samadhihi jataye tatra aanandaha soham etyataha Verse 78

As described in *Gheranda samhita*, *Bhramari kumbhaka* (retention) is done very slowly and the *rechaka* (expiration) is done calmly with humming sound. Which to be able to hear the sounds, one has to have the guidance of a *guru* and be able to withdraw the senses within. That this time our mind will experience **so-ham** means I

am the Brahma and the Ananda will be achieved. Is the initial step that leads one to be *pratyahar* (withdrawal) of senses, to be able to hear the *ananadnaad* (blissfulness) and reach the highest spiritual condition.⁹

PRANAYAMA SUKSHMA VICHAR

Table – 3 The *Prana* level of the body is made of five principle elements¹⁰

1	<i>Prana</i>	Oxygen
2	<i>Apana</i>	enzymes, catalysts and hormones
3	<i>Samana</i>	▪ cells in the digestive system
4	<i>Udana</i>	cells in the respiratory system
5	<i>Vyana</i>	inside the cells, the Krebs cycle

Pranayama powers our body cell and tissues. So that it keeps our body healthy and away from diseases¹⁰

Anatomy and Physiology Of Pranayama¹¹

Pranayama is the process of vital energy control through breathing. *Pranayama* is the prime method of controlling the life force and vital energy of the body through control of breathing. Without mastery over *pranayama* one cannot progress on the *yogic* path of spirituality. The respiratory system consist of two nostrils, tracheobronchial tree and two lungs, bronchioles and alveoli, heart (purifying

and pumping circulation), body tissue cells. This cellular respiration depends on exchange taking oxygen from atmosphere to lungs, to blood, to cells and simultaneously removing carbon dioxide from cells to blood, to lungs, then to the atmosphere¹¹

The respiration process –

1. Drawing air in lungs on a large wet surface area in a million of alveoli where O₂ can dissolve while CO₂ gets eliminated.
2. O₂ moves in pulmonary circulation from lungs to heart and in systemic circulation from heart to the cells of the body. CO₂ travels in the opposite direction.

Table 4 - Three sets of muscles are active in normal breathing and their type of breathing¹²:

1. Intercostals muscles - chest breathing.
2. Abdominal muscles - abdominal breathing.
3. Respiratory diaphragm - diaphragmatic breathing

Respiratory Control Centres:

The respiratory control centers located in the two lowest segments of brain stem. The crude rhythm for respiration is generated in medulla and is refined in Pons. The autonomic nervous system is involved because of viscera, blood vessels

and glands fall in to the core realm of ANS throughout the body.¹²

How Aerobic and Anaerobic Breathing Works

There are two kinds of breathing techniques: Aerobic (external) and Anaerobic (internal).

Aerobic breathing techniques involve slow inhalation and slow exhalation. They pump oxygen into the lungs and blood stream, opening up the bronchioles and providing oxygen to the outer layer of the cellular body. They increase the lung capacity and are beneficial for those suffering from respiratory problems.¹³

Anaerobic breathing techniques pump oxygen into the internal cellular structure, opening cell receptor blockages and multiplying the number of active mitochondria in the cells. Oxygen and glucose are carried into the cell and the mitochondria convert it into CO₂ and ATP (adenosine triphosphate), i.e. energy.¹⁴

Anaerobic breathing techniques remove blockages in the cell and increase the number of active mitochondria. For this reason they are highly energizing, a powerful tool for losing excess fat and a way of maintaining healthy cells. They are highly beneficial for the digestive and reproductive systems.¹³ Increases metabolism. So we can use in metabolism induced disorders. So it is important to refuel the blood with oxygen by practicing aerobic techniques in between and after anaerobic breathing.¹³

How to Do Bhramari Pranayama¹⁵

Sit down in *Vajrasana* or *Padmasana* or in *Sukhasana* at a peaceful place.

1. Bring awareness to the *Ajanchakra*.
2. Your shoulders must be stretched out and your spine straight. Now open up your palms and close your ears with your thumbs.
3. Place your index fingers on the forehead, right above your eyebrows. Let your middle and ring fingers rest on your closed eyes.
4. Breath in deeply and exhale slowly, keeping your mouth closed. While

breathing out make a little humming sound.

5. Your fingers should feel the vibrations of the sound. Remove your fingers from your face and rest them on your knees.
6. One round is complete. Repeat procedure 5-10 times.
7. Sustain the sound until you need to inhale then repeat. The longer you sustain humming exhalation, the more relaxing it is.

Indication Of Bhramari Pranayama¹⁶

1. The main indication of *Bhramari Pranayama* for peacefulness of mind.
2. Insomnia, stress, anxiety, depression.
3. Rhino sinusitis
4. Thyroid dysfunction
5. Hypertension

Contraindications of Bhramari Pranayama^{15,17}

1. Lying down position
2. Sever ear infection
3. Heart diseases
4. Uncontrolled psychotic problem and psychiatric illness.
5. Suffering from organic brain disease.
6. Suffering from complication of substance abuse
7. High blood pressure, migrane
8. Pregnancy, Menstruating women

Precaution During Bhramari Pranayama^{15, 18}

1. *Bhramari Pranayama* should be done in empty stomach.
2. Sitting position
3. Preferably *Bharamari Pranayama* should be practiced in early morning.
4. Do not press your earlobes hard.
5. In heart disease should practice *Bhramari* without *Kumbhaka* and also for short time.

6. Best to avoid suffering from migraine or we can practice with opened eyes under supervision.

Benefits of Bhramari Pranayama^{15,19}

1. If *Bhramari Pranayama* is performed in correct manner it will give *ANANDLILA IN CHITTA* of *YOGI*.
2. This is a best way of to achieve concentration of mind.
3. It opens the blockage and gives a feeling of happiness to mind and brain.
4. Beneficial in reliving from hypertension and sleep apnea.
5. It helps to overcome high blood pressure and heart problems.
6. With the help of this, mind becomes steady, lower mental tension, agitation, etc.
7. It helps in curing paralysis and migraines.
8. All ages of people can try this breathing exercise including pregnant women.
9. In the pregnancy, it helps to maintain and regulate the functioning of the endocrine system.
10. It is very good for Alzheimer's disease.
11. Balance hormones and build immunity.
12. <https://www.ncbi.nlm.nih.gov/pmc/>

DISCUSSION:

In present article we have decided to give to the researchers full information about Bhramari Pranayama.

We have covered Bhramari Pranayama definition by Hath Yoga Pradipika, Gherand Samhita and by modern

aspect. Also we have described its indications, contraindications, how to perform Bhramari Pranayama.

Precaution during doing Bhramari Pranayama, in details as much as possible to collect from previously

published studies since 1980 to 2020 on Bhramari Pranayama and text books knowledge and present it

Collectively in a single article. As per review of previous research studies on Bhramari Pranayama in various aspects, it is helpful in treatment of many diseases and health conditions.

Research studies proves that during Bhramari Pranayama humming sound releases nitric oxide and it prevents Deafness24, Bhramari Pranayama works as a self induced sound therapy to treat Tinnitus25. Nitric oxide released by Bhramari Pranayama increases the micro circulation of blood and vibration of Bhramari opens tiny vessels of brain cases of Presbyacusis and dementia26. It is proved that in the study of EEG Paroxysmal gamma waves during Bhramari Pranayama27, Paroxysmal gamma waves are observed during practicing Bhramari Pranayama and if nature of EEG is recorded at the time of Bhramari Pranayama it found that PGW consists of high frequency biphasic ripples and this EEG activity is most probably non epileptic. The dynamics of brainwave changes during Bhramari Pranayama by its humming sound it is studied in EEG pattern changes after Bhramari Pranayama28. Research studies proves that Bhramari Pranayama and jyoti dhyana, when practiced regularly, it plays the significant role in increase in alfa waves of EEG and hemoglobin29 by increasing O₂ level and keeping mind in bliss by reducing stress lavel. Bhramari Pranayama on the state of anxiety31 gives excellent result by instantly calming down the mind. Interventional effect of Bhramari Pranayama shows increase in mental health of students32 by giving happiness, peace, and develops self esteem and proper

coordination between body and mind. Research on Bhramari Pranayama shows good result in stress due to exam in students³³. Study of the effect of Surya Namaskar and Bhramari Pranayama on self confidence³⁴. Positive effects on mind and body that can give benefits to challenged people like dumb by Humming Sound in the Healing Role of Bhramari Pranayama³⁵. Also done A systematic review on Effects of Bhramari Pranayama³⁶. Bhramari Pranayama is effective in increases concentration and concentration rate counted by visual reaction time, A study shows that visual reaction time³⁷ is increased by bhramari pranayama. It is proved that regular practice of Bhramari Pranayama improves respiratory phonatory coordination, so we can use it on the Acoustic and Aerodynamic Parameters of Voice³⁸ in healthy adults. In the study of Effect of Bhramari Pranayama Heart rate variability changes during and after the practice³⁹ there might be a parasympathetic withdrawal during the practice. Study proves that if slow pace breathing exercise Bhramari Pranayama done for 5 min. it induced parasympathetic dominance on cardiovascular system so blood pressure decrease with slight fall in heart rate⁴⁰. Study proves that regular practice of Bhramari Pranayama and Yoga Nidra can reduce cardiovascular hyper-reactivity to cold pressor test⁴¹ by reduction in mean systolic and diastolic blood pressure due to parasympathetic dominance on autonomic activity. It is proves that Bhramari Pranayama Practice on Pulmonary Function⁴² is effective. Also study shows that Bhramari Pranayama and OM chanting are effective if used together on pulmonary function in healthy individuals⁴³. Bhramari and Bhasrika

Pranayama is effective path for management of polycystic ovarian syndrome⁴⁴ by purifying the Nadis and calming effect in nervous system especially stimulates parasympathetic nervous system and it will help in balancing HPA axis. The effect of Bhramari Pranayama on pregnant women having cardiovascular hyper reactivity to cold pressor test⁴⁵, Bhramari Pranayama used as preventive measure of pre eclampsia because the hyper reactivity to cold press may be an early indication to pre eclampsia

For considering the strength of Ayurveda the benefits on Bhramari Pranayama plays effective role in stress management hence it is necessary to done evidence base researches on it. Bhramari Pranayama in exam going students. It will be powerful success and need of present era if Bhramari pranayama given with addition of Ayurvedic dincharya , Swasthvritta palan, and disorder wise medication treatment.

CONCLUSION:

Bhramari Pranayama is one of the best ancient methods to reduce stress, anxiety, anger, depression. Lifestyle disorder is the main problem in present era, so lifestyle modifications with ancient way of *Ayurvedic Yoga, Pranayama, Achar Rasayana, Swasthvrittapalan, Dincharya, Ritucharya palan* all this used properly in day-to-day lifestyle we can stay away from hypertension, diabetes, heart diseases, obesity, cancer, tuberculosis, exam going students stress and so many other diseases. If *Bhramari Pranayama* is used in such type of patients under guidance of trained teacher then lifestyle will be very easy and healthy. *Bhramari Pranayama* has an advantage in cost

effective therapy and there is no need to take care of any maintenance at all.

Above we have described the disorders where *Bhramari Pranayama* is used by different researchers and the results of all articles noticed and decided to write all importance and uses in different disorders and normal physiological conditions of human being for *Bhramari Pranayama* in a single article with its procedure and contraindications.

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