

**AN OBSERVATIONAL STUDY TO EVALUATE THE EFFECACY OF  
ANULOM -VILOM ON BLOOD PRESSURE**

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**ABSTRACT**

*Yoga*, meditation and breathing exercises are need of today's high pace society. Changing life style along with fast food habits had lead to many disorders like high blood pressure. Today hypertension is becoming a silent killer as it is lately diagnosed and many a times miss treated. Mental factors like stress, sleep deprivation, anxiety, mental confusion etc, has direct effect on blood pressure. Breathing exercises like *Anulom - Vilom* have immediate significant effect on high blood pressure. Seventeen subjects randomly selected from SVNHT'S Ayurved College hospital was studied for effect of *Anulom- Vilom* on their blood pressure. An observational study was carried out for single sitting trial. In one trial effect of *Anulom -Vilom* conducted for 10 minutes in morning with empty stomach - *Anashan* showed mark effect on their blood pressure. It helped to optimize the blood pressure in maximum subjects in one sitting; this showed the immediate applied effect of *Anulom- Vilom Pranayama*.

**Keywords:** *Anulom- Vilom, Anashan, Hypertension, stress, anxiety.*

**INTRODUCTION:** Today *Yoga* and other meditation techniques are in vogue around every metro city. Sedentary life style and wrong food habits had increased the risk of many non communicable disorders. This includes mental as well as physical ailments. In traditional Indian system of medicine - *Yoga* and *Ayurveda*, utmost importance is given to the maintenance of health and to achieve *Purshartha* on its virtue<sup>1</sup>. The pace and way of breathing has connection with mental function and ultimately shows vice versa effects on physical wellbeing.

*Yoga* and *Ayurveda* classics had mentioned practicing of *Ashtang Yoga* for gaining mental as well as physical wellbeing. Although *Anulom- Vilom* is not mentioned in *Ashtakumbhak* but in

*Gherand Samhita* it is explained as *Nadi Shuddhi Pranayama*. *Anulom-vilom* is also known as - Comfortable alternate nostril breathing which should be practiced religiously over a certain period before practicing other *Pranayamas*. *Hathayoga* states that there are 72000 *Nadi* in the body and they must be purified before the *Ashtakumbhaka* practice. As stated *Anulom- Vilom* is *Nadi Shoddhan Pranayama*; Practice of this *Pranayama* for 5-10 min. a day will result in activation of the *Muladhar Chakra* (Root Chakra) causing the arousal of *Kundalini* power (Dormant serpentine power located on the root chakra)<sup>4,5</sup>. The arousal of *Kundalini* power results from the arousal of *Sushumna Nadi* (the Central energy meridian) as a consequence of repeated

rubbing and churning of the breath in *Ida* (Left meridian) and *Pingala* (Right meridian) *Nadi*. This process calms the nervous response of body and thus results in optimizing blood pressure. One sitting of 10 min. Anulom- Vilom Pranayama showed positive results in optimizing blood pressure. The connection of mind and body through breath is thus can be established by observing immediate applied effect of Anulom- Vilom practiced for 10 minutes.

#### AIMS AND OBJECTIVES:

1. To study the effect of *Anulom- Vilom* on blood pressure.
2. To study through procedure of practicing *Anulom- Vilom*.
3. To evaluate mental and physical benefits of practicing *Anulom- Vilom*.

#### MATERIALS AND METHODS:

Subjects were randomly selected from Shri Vivekanad nursing home Trust's Ayurved College *Yoga Varga* for presenting study. They were accessed for immediate effect of *Anulom- Vilom Pranayama* on blood pressure.

#### Inclusion Criteria:

- Age between 30 to 60 years.
- B.P. between 120/80 to 150/100 mm of Hg.
- Subjects were from *Yoga Varga*.
- Medical fitness certified by physician.

#### Exclusion Criteria:

- Age below 30 and above 60 years.
- B.P. less than 120/80 and more than 150/100 mm of Hg.
- Diseased subjects.

#### Study method <sup>2,3</sup>:

- Subjects were asked to practice *Anulom- Vilom* in morning time with empty stomach - *Anashan*.
- Subjects were asked to sit in comfortable posture - *Sukhasana* with back straight, eyes closed and hands on knees in suitable *Hasta Dnyan Mudra*.
- Subjects were requested to close right nostril by right thumb and slowly inhale through the left nostril without making any sound for as long as they can with comfort.
- After complete inhalation left nostril was closed with the ring and little finger and exhale very slowly taking same period of time through the right nostril.
- The duration of exhalation was same that of inhalation.
- After complete exhalation, subjects were requested to inhale through the right nostril and exhale through the left.
- Here three *Bandhas* were not applied; only *Chakranemi Shwasan* is given with very slowly as *Santha Shwasan*.
- This was practiced for 10 minutes.
- This observational study was carried out for one single day.

**Table.1 OBSERVATION:**

Sr.no.	Age in yrs.	B.P.* before A.V.** in mm of Hg	B.P. after A.V. in mm of Hg	Diff. in Systolic	Diff. in Diastolic
1.	57	149/86	130/84	-19	-2
2.	40	116/74	110/78	-6	+4
3.	48	116/66	106/74	-10	+8
4.	41	119/69	116/80	-3	+11
5.	30	116/70	126/79	+10	+9
6.	30	144/80	130/79	-14	-1
7.	50	108/74	130/89	+22	+15

8.	50	116/68	104/67	-12	-1
9.	43	122/69	120/65	-2	-4
10.	32	110/62	99/67	-11	+5
11.	37	159/106	149/108	-10	+2
12.	38	144/77	116/62	-8	+5
13.	36	128/81	111/79	-17	-2
14.	50	131/85	127/84	-4	-1
15.	46	116/84	111/82	-5	-2
16.	54	147/94	134/91	-13	-3
17.	46	125/81	118/83	-7	+2

\* Blood pressure, \*\* Anulom-Vilom

### RESULT:

Systolic blood pressure decreased in 15 subjects i.e. 88.23 % showed the difference while increased in 2 subjects i.e. 11.76%

Diastolic blood pressure decreased in 8 subjects i.e. 47.05%, while increased in 9 subjects i.e. 52.94%

**DISCUSSION:** It is observed that *Anulom- Vilom* decreases the systolic as well as diastolic blood pressure. This is due to relaxation of respiratory and circulatory systems. This *Anulom- Vilom* process purifies whole body and calms nervous system along with mind; hence rightly termed - *Nadi Shuddhi Pranayama*. *Pranayama - Anulom - Vilom* helps to increase cardiac output, decrease hepatic and renal blood flow and increase brain blood flow. *Anulom - Vilom* helps to increase the concentration of the mind and keeps mind calm. Unwanted and penetrating thoughts decreases, thus helps to increase *Satva Guna* of mind and increases good health properties. As study shows decrease in systolic blood pressure of 15 subjects which was higher initially, while increased in 2 subjects which was low or optimum initially. Diastolic blood pressure did not showed marked variation, as 8 subjects diastolic blood pressure decreased within normal level and 9

subjects showed increase in diastolic blood pressure. This *Pranayama* alleviates all the physical disorders and leads to the state of blissful joy, fearlessness, peace of mind and deep meditation.

### CONCLUSION:

- *Anulom-Vilom Pranayama* helps to normalise blood pressure on immediate state by practicing it for 10 min.
- When practiced for 10 minutes in morning and that too on empty stomach - *Anashan*, it gives satisfactory results.
- Study showed the difference in both objective as well as subjective criteria, which included onetime measurement of blood pressure after practicing *Anulom - Vilom* and overall state of mind and body after completing the study.
- It also helps to calm the mind and lead to peaceful happy life.
- Primarily it can be stated on basis of this study that, *Anulom - Vilom pranayama* has immediate effect on mental as well as physical aspect of human beings.

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