

# Improvement In Hematological Profile Through Preksha Meditation

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## Abstract

**Background:** Good health and freedom from disease is the best achievement of life. For thousands of years, yoga an ancient holistic relaxation practice has been used as an effective therapeutic tool that counteracts the adverse clinical conditions of human beings. Yoga has been reported to be beneficial in treating stress related disorders, improving autonomic functions, lower blood pressure, obesity, anxiety, insomnia, psychosomatic disorders, increase strength and flexibility of muscles, improve the sense of well being, slowed ageing process, control breathing, reducing signs of oxidative stress & improving spiritual growth .

**Objective:** The aim of present study was to investigate whether regular practice of Yoga and Preksha Meditation for one month can improve hematological parameters in anemia.

**Material and Method:** The study group comprised 40 healthy adults aged between 20 to 35 years. They were trained for 1 month of Yoga and Preksha Meditation. Assessments of various parameters were done before and after Yoga and preksha Meditation practices, were significantly modulated, statistically by using student's test.

**Result:** Regular practice of yoga for 1 month significantly improved the R.B.C., W.B.C., Platelet count and Hb level in blood.

**Conclusion:** We concluded that regular practice of yoga and Preksha Meditation for promotion of hematological profile of human being and may be use as noninvasive and cost effective therapeutic tool for hematological disorders. The pathway of mechanism will be discussed in detail.

**Keywords:** Yoga, hematological parameters.

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## Introduction

Praksha Meditation is one of the meditation technique, it is spiritual and scientific process derived from Jain Agamas. Meditation is a word that has been used in variety of ways but all of them define it as thinking contemplation, concentrating mind on an object, paying attention etc. but in the tenet propounded by Lord Mahaveer "*Perceive and know*" is given more prominence because perception is strictly concerned with the phenomenon of the present, neither past nor future. He stated "*Sampikkhaeap-pagamappaenam*" means 'see you thyself' or perceive and realize yourself, which

later becomes the principle of the Jain yoga tradition, and formulated as Preksha Meditation by Late Acharya Tulsi and Acharya Mahaprajna[1]. The word Preksha is derived from the root *iksa*, which means 'to see'. When the prefix '*pra*' is added, it becomes *pra + iksa = preksa*, which means to 'perceive carefully and profoundly' [2].

Here, 'seeing' does not mean external vision, but careful concentration on subtle consciousness by mental insight. Preksha Meditation is the system of meditation engaging one's mind fully in the perception of subtle internal and innate phenomena of consciousness. The name

Preksha Meditation was therefore assigned to the present technique; thus this technique is basically not concentration of 'thought' but concentration of 'perception'. To know and to see are the characteristics of the consciousness. In its mundane state, being contaminated by Karmic matter, the faculty is not fully manifested, but it can be developed.

A state of mental tranquility is achieved by the practice of yoga as revealed by increase in alpha index of electroencephalogram after short term yoga.[3,4] Yoga can protect the individual by bringing harmony between mind and body, modulating stress responses and one's attitude to stress as also improving mental faculties such as attention, memory, learning efficiency and positive attitude to life.[5,6,7] Total growth of personality at physical, mental, intellectual and social level can result with the regular practice of yoga.[8] At physical level regular practice of asana, pranayama bestows a proportionate, flexible, normally relaxed body with an ability to withstand stress efficiently. Yoga is the best lifestyle modification, which aims to attain the unity of mind, body and spirit through asana (exercise), pranayama (breathing), and meditation. [9] The study was carried out at meditation center of Jain Vishva Bharati to study the effect of Preksha Meditation practices on hematological parameters such as R.B.C Count, WBC Count, Platelet Count and hemoglobin.

### **Material and method**

The study was carried out on 40 healthy adults which were enrolled in one month Preksha Meditation camp organized by Jain Vishva Bharati Institute from 20 May 2015 to 21 June 2015 on the occasion of 1<sup>st</sup> International Yoga day. All the subject are having similar socio-economic statuses and area in between the age group of 20 to 35. All the parameter i.e. R.B.C Count, WBC Count, Platelet Count and hemoglobin were tested at onset of experiment and after one month of P.M. intervention. The

following intervention were given to the subjects –

Yogasana - 30 min

Pranayama - 10 min

Preksha Meditation - 20 min

**The asanas practiced were:** Tadasana, Ardhakatichakrasana, Trikonasana, Padhashtasana, Paschimotanasana, Vajrasana, Uttanpadasana, Sarvangasana, Halasana, Salbhasana.

**The Pranayama Performed was: Anulom-vilom**

The volunteers practiced these exercises early in the morning in a quiet, well ventilated room or in open air space sitting in a comfortable posture.

**The Meditation performed was: Kayotsarag and Savaspareksha**

The same as told by Acharya Mahaprajna (Method is available in Preksha Meditation: Theory and Practice)

The intervention was given by researcher herself under the guidance of senior Yoga teacher.

### **Statistics**

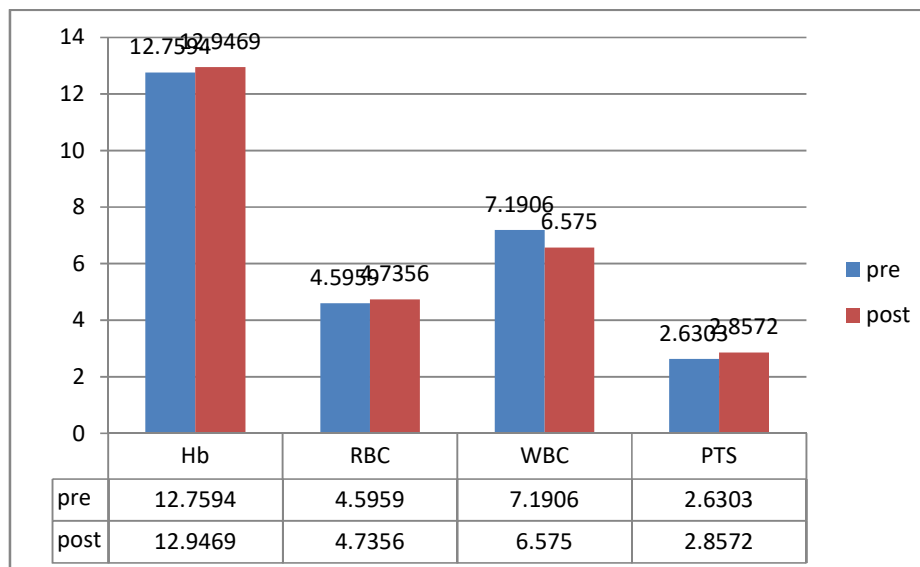
The obtained data were analyzed statistically by using Statistical analysis of total RBC Count, total W.B.C. Count, hemoglobin content/dl and total Platelet Count, were done using student 't' test and  $p \leq 0.05$  were considered as significant.

### **Results**

After statistical analysis of obtained data we found a significant increase in the mean value of Hemoglobin, RBC Count, Platelet which were  $12.7594 \pm .22987$ ,  $4.5959 \pm .10126$ ,  $2.6303 \pm .10149$  at the onset of our experiment and increased to  $12.9469 \pm .22002$ ,  $4.7356 \pm .10624$ ,  $2.8572 \pm .12986$  respectively.

Where as a statistically significant decrease was seen in the mean value of WBC Count after experimental intervention. The mean value of which is  $7.1906 \pm .38270$  at pre stage and decreased to  $6.5750 \pm .27922$  after one month.

Sr. No.	Parameter	Duration	Mean	SD	Co- relation	t	p
1	HB	Pre	12.7594	1.30034	.928	2.178	0.05
	HB	Post	12.9469	1.24460			
2	RBC	Pre	4.5959	.57281	.893	2.899	0.01
	RBC	Post	4.7356	.60097			
3	WBC	Pre	7.1906	2.16487	.850	2.976	0.01
	WBC	Post	6.5750	1.57951			
4	Pletlet	Pre	2.6303	.57411	.617	2.172	0.05
	Pletlet	Post	2.8572	.73462			



### Discussion

The results obtained suggest that there was a significant increase in HB, RBC count and platelets where as a significant decies in WBC count was there. It suggest the improvement of blood count profile towards health. As these are the indications of over health.

Earlier studies have shown significant improvement in RBC with practice of Yogasana for about 12 weeks. Apparent increase in the concentration of red blood corpuscles is due to mobilization of plasma from blood to tissue fluid. Besides this, Yogic asanas, pranayama and exercise makes a greater amount of oxygen supply thus putting into circulation the red blood corpuscles stored in spleen and accessory spleen. Asanas and exercise also increase the myoglobin pigment which is

helpful to supply more amount of oxygen. [10] Present study reveals increase in RBC Count after 6 weeks training but it was not statistically significant. But there was significant improvement in Hemoglobin, MCH, MCHC content in subjects after 6 weeks training course.

Yogic asanas and pranayamas minimize all types of stress of body. Leucocyte count increase only when there is stress and allergy but the effect of yogic asanas decreases total leucocyte count indicating anti-stress and allergy but the effect of yogic asana decreases total leucocyte count indicating anti-stress mechanisms of the body whether it is physical, physiological or psychological. Increase in Neutrophil count in present study is because of biochemical reaction in the body as the Neutrophils function as the first line of defense involving in process of

phagocytosis.

resent investigations also supports earlier findings by Winter 1985, King Roy 1999, Shridharan K et al., Mujumdar 2000 and Malathi2001. [11,12]

The study group volunteers showed the effect of yoga & Preksha Meditation on total RBC Count was increased, whereas total WBC Count was decreased, hemoglobin content/dl was increased, and total Platelet count was also increased and all these parameters were modulated due to regular practices of yoga. Earlier studies have shown significant improvement in RBC with practice of Yogasana for about 12 weeks. Apparent increase in the concentration of red blood corpuscles is due to mobilization of plasma from blood to tissue fluid. Besides this, Yogic asanas, pranayama and exercise makes a greater amount of oxygen supply thus putting into circulation the red blood corpuscles stored in spleen and accessory spleen. Asanas and exercise also increase the myoglobin pigment which is helpful to supply more amount of oxygen. Yogic asanas and pranayamas minimize all types of stress of body. Leucocytes count increase only when there is stress and allergy but the effect of yogic asanas decreases total leucocytes count indicating anti-stress and allergy but the effect of yogic asana decreases total leukocyte count indicating anti-stress mechanisms of the body whether it is physical, physiological or psychological. [13] There was significant improvement in Hemoglobin, MCH, and

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MCHC content in subjects after 6 weeks training course.[14,15,16] yoga asanas significantly increase hemoglobin (Hb) content[17,18,19], effect of Sudarshan Kriya yoga was also significantly increase hemoglobin content[20], it can be hypothesized that it is due to antistress and antioxidant effect of yoga. The effect of various yoga exercises on various hematological parameters such as platelet count, clotting time, and bleeding time reported that their platelet count and clotting time both were increased significantly.[21] The effect of yoga on anemic patients was significantly increase hemoglobin content due to increased red blood cell count can be explained by two different mechanisms; it may be due to hypoxia that release more erythropoietin during yoga practices and second is that yoga practices increased release of iron stores from reticulo endothelial cells and splenic contraction enhance the release of reserved RBCs.[22]

### Conclusions

We can conclude from the above that regular practice of Yoga and Preksha Meditation may result in improvement and promotion of hematological profile of human being. This technique may be use a therapeutic tool for the patients suffering from hematological diseases as it is noninvasive and cost effective so may cut shorts the medical expanses of family.

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