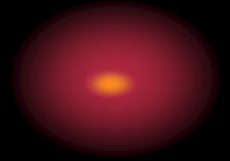


# **PRANAYAMA**

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# Introduction to Breathing



- **Though our whole life is entirely depends on Breathing, we give rare attention on its process**
- **If breathing is spontaneous function of the body, then why should we care?**
- **Our respiratory muscles become lazy and cease to give optimum inhalation and exhalation**
- **Life and Breath are intimately connected (When the person dies we says he is EXPIERS)**
- **As per Yogic Principles, Life is period between one breath to the next: A person who only Half Breathes, Only half Life.**

# Breathing Principle

- **A person who breathes quickly tends to inhale small volumes: this tends to allow germs to accumulate in the lower areas of the lungs**
- **A person who breathes slowly tends to also breathe deeply, which helps to remove stagnant air from the lower reaches of the lungs and destroy the breeding of germs.**



# Breathing Philosophy



- **Human lives are determined by the rhythms of the nature between Sun Rise and Sunset with the rhythm of the moon and stars.**
- **Conceder few Factors of Rhythm in Living Kingdom in earth**
- **Birds Migrate According to the Season**
- **Animal Mate in Season**
- **Changes their Fur or feather**
- **Travels Thousands of Km to particular locality**
- **Ants moving Harmonious way**
- **Science has not yet been able to tell us what causes this.**
- **All this likely some rhythm of life that triggers a brain function which automatically makes them follow certain pattern of Behavior**
- **Like all above, Human activities should be determined by natural rhythms around us**
- **Modern life style spoiled this rhythmic life style for themselves as well other living hoods**
- **This modern life style changes the rhythm, so that reason suffer Different syndromes & Disease and feel alienated from our surroundings**

# WHAT Does all these relate to Respiration?



- **During Olden days Human was more receptive to the Nature rhythmic lifestyle**
- **He followed Slow, uninterrupted, non Material Natural life Style, Where there was no Absolute need for breathing Techniques, because it is Spontaneously rhythmic with nature life style.**
- **His Active way of life style make encouraged the lungs to work optimum capacity.**
- **But Modern Human live through fast, Competitive, fear and Hatred, which does not allow the respiratory system to work as it should.**

# Modern life Factors Influence the Breathing



- **Not having Cold Shower**
- **Not Natural Environmental Living**
- **Air Conditioned Work Style**
- **Living Pattern**
- **Non harmonious thinking pattern**
- **Pollution**

# Breathing Capacity

- **In a relaxed Normal Condition a Person Inhales & Exhales Approx. Half a Liter (0.5) of Air. This is called TIDAL Volume in Physiology**

## Inhalation

- **If the same person expanded his chest and abdomen to maximum of its possible, would Draw Aprox Extra 2 litre Air.**
- **That Extra Volume of the Air Capacity that Inhaled is Known as Inspiratory Reserve Volume in Physiology**

## Exhalation

- **Same Way, If the same person after normal expiration the chest and abdomen are contracted as much as comfortably possible to expel an Extra One & Half Liters (1.5Lt) of Air from the lungs over and above the normal half (0.5) Liter air that exhaled during normal condition**
- **That Extra Volume of the Air Capacity that Exhaled is Known as Expiratory Reserve Volume in Physiology**
- **Lungs can not expirate complete Volume of the Air that Inspired. The Excess Volume of the air (Approx 0.5Litre) that remain in the Lungs is Known as Residual Volume in Physiology**



# Breathing capacity Calculation



- **Let Us Do Simple Calculation**
- **0.5 Liter (Tidal Volume) + 2 Liters (Inspiratory Reserve Volume) + 1.5 Liters (Expiratory Reserve Volume) = 4 Liters**
- **4 Liters Air Volume is 8 Times Higher than the normal inhalation & Exhalation or we using 1/8th of the lungs capacity in normal condition**
- **That is the Reason that you need to Learn Proper Breathing Techniques for modern life style**



# Why Slow Breathing

- **Advantages of Deep breathing is obvious, But why we need slow Breathing?**
- **Between Inhalation & Exhalation lungs need time to transfer the oxygen in to the blood and Carbon dioxide from the blood for expulsion**
- **If the breath fast than the transfer will not get optimum**
- **The Depth and speed of breathing is complement each other**

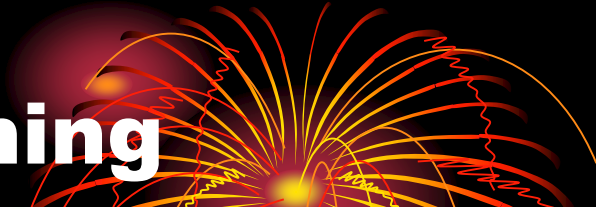


# Mechanism of Breathing



- **Let's understand the Mechanism of Breathing OR How air drawn in to the Lungs?**
- **Lungs are two flexible and strong bags which can be inflated or Deflated as air flow in or out of them during Inhalation and Exhalation respectively**
- **Lungs Have ability to Expand greatly and also can be contracted into small space**
- **The Lungs are surrounded at the Top & sides by thorax or the Ribcage**
- **At the bottom surrounded by the Very important flat muscle called Diaphragm.**
- **The Diaphragm Separates the abdomen from the lungs**
- **The Lungs are not fixed to the Ribcage or Diaphragm but closely follow any changes in shape of the lungs.**
- **When Ribs expand and Diaphragm moves down due to muscular action, then there is a tendency to get Vacuum out side area of the lungs, Naturally the lungs inhale the air against the vacuum force.**
- **Again due to muscular contraction on Ribcage & Diaphragm, both moved involved and the Lungs Squeezed and the air pushes, so the Exhalation takes place.**
- **This one cycle of inhalation and Exhalation Process is called one Breath**
- **In Yogic principle, this is one Count**

# Different Methods of Breathing



- **As per Yogic Principle There are Three stages of breathing Process**
- **Abdominal or Diaphragmatic Breathing**
- **Intercostals or Middle Breathing**
- **Clavicular or Upper Breathing**



# Abdominal or Diaphragmatic Breathing



- **This type of Breathing Associated with the movement of the Diaphragm and the outer wall of the abdomen.**
- **Normally When relaxed or Exhaled position Diaphragm muscles are arches upward towards the chest.**
- **During the inhalation the Diaphragm muscle starts moving to upwards which compresses the abdominal Organs and eventually pushes the front wall, the belly, of the abdomen outwards**
- **This movements enlarges the chest cavity downwards allows lungs to expand and there by air drown to lungs from the surroundings**
- **Again on relaxation or Exhalation, the Diaphragm muscles pulled upwards and reduces the volume in the chest cavity and there by causes Exhalation.**
- **This form of breathings draws in maximum amount of air with least muscular effects**

# Intercostals or Middle Breathing



- **This type of Breathing Associated with the movement of the Ribcage**
- **During the Expansion of the Ribcage the lungs are allowed to expand**
- **Air being Drawn in to the lungs from the front side**
- **When the Rib outer Muscle gets relaxed, the ribs move downwards and inward and compresses the lungs and exhalation takes place.**

# Clavicular or Upper Breathing

- **This type of Breathing Associated with the movement of the Shoulder and the collarbone.**
- **This effort need much effort for little inhalation and exhalation**
- **This movement will have no direct influence of any lungs Oxygen Exchanges**



# Yogic Breathing



- **Yogic Breathing is Nothing but combination of all the previous mode of three breathings (Abdominal, Middle and Upper) into one harmonious movement**
- **This is the best breathing method for optimize our lungs capacity**
- **This type of breathing that we need to Develop before any Breathing Techniques or PRANAYAMA**

# Pre-Meditative exercise Practice



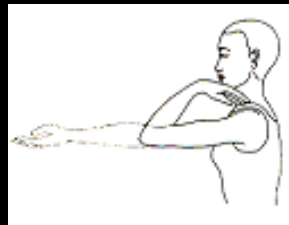
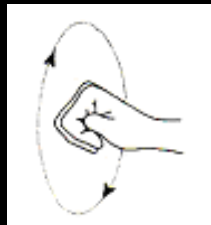
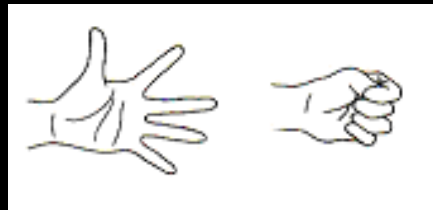
PRARAMBHIKSTHITI



Practice 1



Practice 2



ARDHA TITALI ASANA



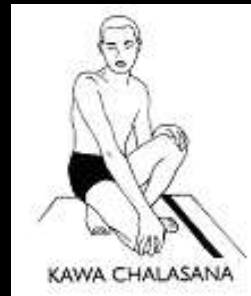
SHRONI CHAKRA



UTTHANASANA



GATYATMAK MERU VAKRASANA



KAWA CHALASANA



CHAKKI CHALANASANA



Stage 1



Stage 2



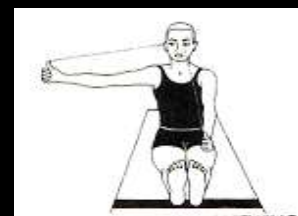
Stage 3



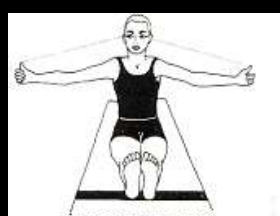
Stage 4



UP AND DOWN VIEWING



FRONT AND SIDWAYS VIEWING



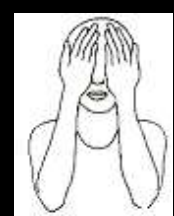
SIDWAYS VIEWING



ROTATIONAL VIEWING



NASIKAGRA DRISHTI



PALMING



**THANK YOU**

