

SYMT Science of Breath Study Guide: Chapters One to Three

Chapter One

How do the mind and body connect? What is the intermediary step from an Eastern or yogic point of view?

What is prana? Nadis?

What is the main way prana is regulated in the body?

With each breath energy flows through the body in waves, constantly shaping and restructuring the pattern of energy which comprises the pranic body. What does this mean to you?

The physical body is secondary to the more fundamental energy body. If the energy pattern is altered the body will change for the better or worse. Give an example of this. Do a breathing exercise from the book. What changes in your body/mind are you aware of?

What is the pranamayakosha? What two things does it lie between and connect?

What is the only physiological process that can be done voluntarily or involuntarily?

What is svarodaya?

Chapter Two

Explain how living organisms meet their energy needs? (p.20-21)

What are mitochondria? What is ATP?

What is the pathway of oxygen on a full breath cycle of inhalation and exhalation?

What muscle divides the thoracic cavity from the abdominal cavity?

Describe the design of the ribcage. Include the number of ribs that attach to the sternum, mention joints and vertebra, and describe the movement of the ribs in breathing

What does the innermost pleural layer cover?

What does the outermost pleural layer cover?

What are the three ways to expand the chest cavity for inhalation?

Explain how to do the yogic complete breath

Why do the alveoli recoil on exhalation?

Exhalation beyond the position at which the diaphragm is at rest requires activation of what muscle group? How does this work?

What are breathing habits?

Which type of breathing is best suited for everyday functioning?

Name two health conditions that a regular practice of diaphragmatic breathing may alleviate

What is a fight-flight response? What aspect of the nervous system causes it?

What are the two divisions of the autonomic nervous system? What does each one control?

What is paradoxical breathing?

What does the author mean by the quality of breath flow?

What happens in a mid-cycle rest breathing pattern? Mid-cycle rest is associated with what disease?

Chapter Three

Where is the narrowest passage in the respiratory tract?

How many breaths do we take on average each day?

Name the main functions of the nose (p. 46)

Why do people from different places have differently-shaped noses?

What does the septum do? What is a deviated septum?

Draw a diagram (can be more than one) of the nasal passage. Include and label: external nasal cartilage, the vestibule, the alae, nasal bone, palate, septum, uvula, area above (top floor of brain and eyes, the area below (bottom floor) of mouth, turbinates.

What's the function of nasal mucus?

What causes the movement of the mucus blanket?

Why is it important for its thickness to be 'just right?'

Sometimes the mucus membranes become used as a means for excretion. Give one example of why they would need to be used that way? And list the other routes of excretion mentioned.

What are the sinuses? Where are the largest ones?

What is sinusitis?

What is a neti wash? Why is it useful?

What is the tissue called that lies directly underneath the mucous membrane?

About how much time are the intervals of laterality in the nose, or the change of airflow from one nostril to the other?

Basically, what is one doing when practicing alternate nostril breathing?