

HUMAN BODY & YOGA (ORGANS WISE)-KMRR

(దేహము-యోగము)=====

1.THE BRAIN (MONOLOGUE)

Action - Reaction

*Have you shouted with excruciating pain when you have burnt your hands in the process of cooking?

*Have you ever leaped with joy?

*Have your tears flowed down your cheeks when you are in grief ?

*Has the fragrance of jasmines touched your nostrils enthralling you?

Suffering,joy,sorrow,smell,taste etc can not happen on account of the movement of an organ on its own.When any organ in your body moves, I am at work.

I haven't told you who I am.People call me 'brain'.No ant stings you without the command of Lord Siva.No organ in your body can move without my command.I am at the centre of your feelings or impressions.

My Structure: I look like a coconut kernel and like pulp in the wood apple.I exist in the skull. When the skull receives any blow I experience great pain.

I weigh about 1,400 gms and convey messages to the organs through peripheral nervous system,which is composed of spinal nerves that branch from spinal cord and the nerves that branch from me.

Crores of specialised nerve cells in me are called neurons.They are divided into five parts.

- 1.Cerebrum
- 2.Mesencephalon
- 3.Pons
- 4.Cerebellum
- 5.Medulla Oblongata

Besides these I have three protective layers.I have both left and right parts.Several crores of spinal cords in me travel through spinal cord to reach various organs of the body.I have two following glands which work from your head to foot.

- 1.Pineal gland
- 2.Pituitary gland

I have the duties of the Prime Minister administering our country. I administer your body as the Prime Minister running the government. Several centres within me work for you entirely. The right part of mine is devoted to tastes and the left part is concerned with smell. Your body always acts in accordance with my commands.

The circulation of blood should be regular to enable my parts and centres to work properly. If any part is not supplied with blood for any reason it will not function at all.

Intelligence and Memory: Your intelligence and memory are dependent on my genes.

The Symptoms of My Diseases and Causes

*When a person falls down from high places and receives injuries to his or her head strongly the nerve centres in me are affected badly. His body may be under abnormal condition known as paralysis.

*The parts affected in me lead to malignity. Each part of mine does specific work. If it receives any blow it will be without the circulation of blood. Tumours are formed in such affected parts.

*If the head receives a severe blow it will stop the functioning of some vital parts. Then your body will undergo either physical or mental changes.

*If the frontal lobe gets a blow there will be changes psychologically. Such a condition will decrease your intelligence. There will be indignation, emotion and precipitation.

*If parietal lobe gets spoiled with a strong blow
It will affect the sense of touch.

*If the temporal lobe gets a severe blow its malfunctioning will create illusions and hallucinations. It will lead to fits in some people.

*If the occipital lobe is affected with a bad blow it will affect the eyesight.

*If blood pressure is unusually high it may lead to thrombosis which causes a blood clot within a blood vessel.

*Owing to cerebral arterial thrombosis I have blood clots. If my right part is affected with such a clot causing the stoppage of blood in certain parts I will have paralysis on my left side. If my left part receives blood clots bringing blood circulation to a halt I will get paralysis on my right side.

I am likely to be affected with the following ailments.

1. Tuberculosis

- 2.Meningitis
- 3.Encephalitis
- 4.Fits
- 5.Cerebral palsy

You should take the following precautions to protect me

*Take great care to see that I am not hurt on any occasion.

*Wear a helmet while travelling on two wheelers.

*Use seat belt while travelling by car

*The infants should be given nutritious food within eighteen months for the growth of intelligence.My growth usually occurs during twenty four months of infancy.

*The underaged children should be protected from certain diseases.They should be administered related vaccines periodically.

*If you devote sufficient time to physical exercise, *yoga,pranayama* and meditation during your boyhood I will keep myself peaceful and yourself active.

Yoga Asanas

- 1.Pada-hastasana
- 2.Tapoasana
- 3.Natarajaasana
- 4.Prasaritaasana
- 5.Purnavakraasana
- 6.Yogamudra
- 7.Veerasana
- 8.Paschimothasana
- 9.Sarvangaasana
- 10.Vipareetha Karani mudra

You should practise the following steps with a quiet mind.

- 1.Kapalabhati/Bhastrika
- 2.Nadi Shodhana(sitting/reclining)
- 3.Ujjai Pranayama
- 4.Thrataka,Dharana,Maha Yoga Nidra,Dhyana

Yogic Cure for Central Nervous System

- 1.Suryanamaskara
- 2.Tapo-asana/Garudasana
- 3.Arthavakrasana
- 4.Gomukhasana
- 5.Shashankasana
- 6.Sarvangasan/Halasana
- 7.Chakrasana
- 8.Mathrugarbhasana
- 9.Prashanthasana

NATURE AND MAN

There were crores of galaxies in this vast universe several hundred crores of years ago.It is said that the earth and its satellites were formed then.Lakhs of living beings were born on the earth.Man has originated from chimpanzees and gorillas .

Nature and oxygen have been in this universe since times immemorial.During primitive ages man learnt to live with Nature. The growth of population led him to the search for new regions and struggle for existence for several thousands of years.Human society has learnt to lead lives in civilisation with the passage of time.

In Spite of improvement in life man has not cut off his affinity with Nature.He is determined to destroy Nature for his selfish needs.Sage Kapila said," man has to cleanse his conscience with spiritual knowledge and strive for the glorious growth of his community with his aptitude and attitude".

Sage Kapila's monumental work,*Sankhya Darshan*,laid the foundation for the education of yoga two thousand and three hundred years ago.Several visionaries like Sage Kapila took their birth in India, the land of action,duty and virtue.

It is our tradition to worship and preserve water,trees,cattle,birds and anthills.We should consider it our bounden duty to preserve Nature for our sustenance.

CARDIOVASCULAR SYSTEM (THE HEART)

2.THE HEART BEAT

We can get on with the non-functioning of some organs in our body. Without the functioning of heart man takes his final journey. The stoppage of heart beat is a sure indication of death. I am the heart, protecting you. Many poets in the world depict me in their poetry.

I am shaped like a conch. My colour is red mixed with the colour of coffee. Do you wish to know my size? I am as small as your fist in quantity. All other organs in your body enjoy leisure and rest but I don't enjoy such things. I always go on beating. The sounds which I make are called 'palpitations'. In an average adult my beats are usually seventy two per minute. Anger and emotion precipitate my beats. In the children my beats are more than those of adults.

My palpitations are never at rest. From birth to death I beat two hundred and sixty crore times. I recycle five litres of blood in a man. In his life time I purify forty crore litres of blood and circulate them to various organs of the body.

My Structure: I work restlessly throughout your life. My weight is three hundred and forty grams. In women I weigh about 290 gms. My muscles go on expanding and contracting usually. My contraction is indicated as 'systolic' by Blood Pressure Monitor. (If your blood pressure is 120-140 hygrometers you are healthy.) The movement made after contraction is known as 'diastolic'. (If your blood pressure is between 80 and 90 hygrometers your health is all right.)

I speak about my actions: I discharge two duties primarily. I send the bad blood received from various organs in the body and send it to the lungs for purification. I receive purified blood from the lungs and send it to different organs in the body. I go on getting blood purified and send it to various organs along with oxygen and nutrients. Thus I keep other organs in the body healthy.

I require oxygen and nutrients to work properly. I receive them all through blood. I will tell you how I go on doing my work efficiently.

*I supply the blood mixed with oxygen to every cell in your body.

*Every cell sends me bad blood mixed with carbon dioxide. I send bad blood to the lungs. There carbon dioxide is taken out and the blood is mixed with oxygen. Such purified blood is sent to me for circulation among various organs.

*I maintain an equal status of body's temperature.

I observe the following symptoms when I am ill.

*Some unusual sounds are heard in the event of my illness. They are called 'murmurs'.

*I encounter fatigue and sweat while walking. The throat gets pain as experienced during childhood.

*High blood pressure,diabetes,venous closure,my rare expansion etc.

*Pain in the chest,hardening of veins,thinning of blood-carrying vessels etc.are the symptoms noticed.

You should follow some specific principles for your happy lives and for the security of my health.

*Don't become very angry under any circumstances.Don't shake with emotions frequently.

*Mental peace is your prime requirement. Practise Pranayama, meditation and yoga nidra for positive results.

*Don't drink beverages like coffee tea and liquor.Give up the habit of smoking.Distance yourself from those bad habits.

*If you grow middle aged you should get total body tests twice a year.You know my palpitations through E.C.G.

If you have bad habits and don't care for my health I will suffer from the following diseases.

- 1.Rheumatic heart disease
- 2.High blood pressure
- 3.Hardening and thinning of blood vessels
- 4.Chest pain
- 5.Heart stroke
- 6.Expansion of heart
- 7.Burning sensation in the heart

Yoga can control heart diseases considerably

- 1.Yoga asanas
- 2.Pranayama
- 3.Meditation
- 4.Yoga nidra

My Limits for You

*Your height should be in consonance with your weight.

*My beats per minute should be between 70 and 80.

*The pressure of blood,flowing from me
(80-120hgs)

The Quantities required for My proper functioning

- *Serum cholesterol: -(180-200) mg/dl
- *Serum triglycerides- (45-145) mg/dl
- *L.D.L.cholesterol:- 100 mg/below dl
- *H.D.L. cholesterol:- 40 mg/below dl
- *Sugar reserves in blood - (120-140) mg/dl

If you take care of my health I will go on playing my key role in your body.You lead a happy life when you protect me.

Food habits for a healthy heart

You should take an integrated meal.

- *Greens,fresh vegetables,sprouts,fruit etc.
- *Non-vegetarians should take 3-4 eggs per week.
- * They should take vegetables rich in vitamin E and vitamin C.

The food to be taken by cardiac patients

- *A simple meal should be taken.Punctuality should be followed.
- * Abandon fatty food,fried food,pickles etc.
- *Buttermilk without butter and egg without yolk should be taken.
- *Salt s
- *Prasarita padothanasana
- *Kapothisana
- *Sarvangasana

Pranayama

1. Anuloma-Viloma
- 2.Kapalabhati
- 3.Nadi Shodhana.

Yoga asanas for cardiac patients

- 1.Parvathasana
- 2.Ekapadauthasana
- 3.Tholangulasana
- 4.Shashankasana
- 5.Arthavakrasana
- 6.Mathsendriyasana

7. Prashanthasana (10 minutes)
8. Meditation (20 minutes)
9. Yoga nidra (30 minutes)

SAGE KAPILA'S SANKHYA DARSHANAM

Sage Kapila who authored *Sankhya Shastra* belonged to third century BCE. Patanjali wrote *Yoga Sutra* in second century BCE. Sage Vyasa composed *Brahma Sutra* and *The Mahabharata* in the first century BCE. These three are called 'maharshi thraya'.

'*Siddhanam kapila muni*:-Of the enlightened ascetics I am Sage Kapila.' Says Lord Krishna in twenty sixth stanza of Chapter 10 of *The Bhagavadgita*. There is Sankhya Yoga as a chapter in *The Bhagavadgita*. There is an indelible impression of Sankhya on the chapters, Vignana, Kshetra kshetrajna vibhaga, Gunathraya vibhaga and Yoga.

"Truth is not only visible." (Inductive logic)

"The invisible may be the truth." (Deductive logic)

We can not see the invisible with all five senses. Indian Philosophy gave us six *darshans*. They are *sankhya, yoga, nyaya, vaisheshika, mimamsa* and *vedanta*. 'Darshan' means vision, mirror, wisdom and scripture. These six *darshans* are prominent in our philosophy.

Though *Sankhya Shastra* was very ancient and interpreted widely in *The Bhagavad Gita* it was compared to Buddhism on account of its logic and transformation theories. It was kept in the dark. Recently several universities all over the world have considered its influence on physics, medicine, astronomy and environment. Research work is in progress in various universities.

Sankhya has helped us realise the significance of Nature, the universe, the creation of man and other creatures. With the process of transformation we have obtained various things. *Sankhya* is certainly a gift to mankind.

Hatha yoga focuses on *asanas* and the concentration on breath. *Sankhya yoga* advises us to think logically and distinguish between good and evil. **Kapila Maharshi Research for Resources** has conducted each programme with rationality and humanism.

KAPALABHATI - LUSTRE FOR THE BODY

Kapalam means head. *Bhati* conveys the meaning of light. In yoga *jalaneti* and *sutraneti* offer yogic cure for mucus and bile problems in our body. They improve our respiration and digestion remarkably. Some studies reveal that some people who practise excessively after visualising the session of *Kapalbhati* on Tv have fallen ill. One should learn yoga through a guru. *Kapalbhati* can influence Manipura Chakra and Sahasrara Chakra. Its proper practice improves our digestive system (*annamaya kosha*) and intellect (*Vignanamayakosha*).

Procedure to be followed

1. Take the posture as in *Vajrasana* and keep hands in *gnana mudra*.
2. Take deep breath with two nostrils moving the stomach forward. Exhale with nostrils keeping your stomach in its exact position.
3. This breath exercise should go on for ten times (both inhalation and exhalation).
4. In practice take inhalation perfectly and exhale rapidly for several times. This cycle should be continued up to ten minutes. Time can be increased depending on one's stamina.

The Results of the Exercise

- *It purifies the digestive system.
- *It energises biochemical actions.
- *It cleanses *ida* and *pingala* nerves.
- *It facilitates equilibrium in the nervous system.
- *It puts an end to indignant behaviour, fostering gentleness.
- *It eliminates lethargy and induces sleep.

Be Alert

Those suffering from high blood pressure, giddiness, hernia, cardiac diseases and ulcers should not practise *Kapalbhati*.

Those who have undergone surgery should obtain permission from the doctor before taking exercises concerning *Kapalbhati*.

RESPIRATORY ORGANS (LUNGS)

3. THE APPEAL OF THE LUNGS

All of you close the nose for two minutes. What is happening? The most important thing that your body requires is missing.

It is called oxygen. If you want to keep your life your heart should function properly. Your heart needs oxygen to carry out its functions.

Do you know who supplies oxygen to your heart ? We do. We are called lungs. We are two in number. We are the keepers of your life.

Our Structure: We are on the either side of the chest. There is no difference in our duties. We carry out similar functions. We are rose-coloured in the children. As they grow up we turn grey. We look like a sponge. We have three parts on the right and two parts on the left. We have similar appearance.

Through your nose the air is supplied to us by trachea which is divided into two parts in the chest. One trachea joins the right lung and the other joins the left lung.

Our Main Functions

*We supply oxygen to the heart and send out carbon dioxide.

*We fill ourselves with the air from outside through ventilation and send sufficient oxygen to blood.

*We purify the blood we receive from the heart and supply purified blood to the heart.

*We control respiration according to the requirements of the body.

The Type of Our Work

*Normally we inhale and exhale for sixteen times a minute. Under special circumstances the rate of respiration may increase or decrease.

*The increase and decrease of respiration depends on the nervous system. The nerve centre governing the operation lies in medulla oblongata.

*Chemicals play a key role in controlling our respiration. When your blood has alkalinity the respiration is normal. When it has more acidity there can be a change in the process of respiration.

*If you breathe deeply we will receive five litres of the air. You inhale half a litre of the air when you are at rest.

*Vital capacity of lungs in women is lower than that of men.

*When you take inhalation in full the heart receives sufficient oxygen.

The Causes of Our Diseases

- *Polluted atmosphere
- *Negative bacteria or microbes enter us through dust and smoke,carried by unclean air.
- *Smoking
- *Poisonous gases,emitted by vehicles

Your negligent attitude towards us and your bad habits endanger our health.We suffer from the following diseases.

1. We usually notice the symptoms of cough.Some people have blood while coughing.

The reason for this is bronchitis,tuberculosis and lung cancer.
The symptoms of these diseases appear when some parts of us get damaged.

2.There is pain in the chest.Some people encounter fatigue while speaking,walking and working.

3.On account of sinusitis the skin,the nails,the lips and the tongue become bluish.Owing to the illness we do not receive sufficient air.The blood gets insufficient oxygen under such circumstances.

4.If carbon dioxide in the blood does not exit, the blood and the skin will be bluish.

5.Cyanosis refers to a bluish cast to the skin or mucous membrane.It is usually caused by low oxygen levels in red blood cells.Warming or massaging the blue areas may restore the oxygenated blood.

Contact the doctor immediately when the symptoms are observed.Undergo the tests for diagnosis.

- *X-ray
- *Sputum test
- *Blood tests
- *Bronchoscopy
- *Plural biopsy
- *C. T.Scanning
- *M.R.I.Scanning

Follow the advice of the doctors after the tests.

We should have the following for health

- *Adequate food
- *Exercise

- *Yogasanas
- *Pranayamam
- *Dhyanam

Yogasanas

- *Parvatasana
- *Dynamic surya namaskars
- *Thadasana
- *Ushtrasana
- *Sarvangasana
- *Matshyasana/Suptavajrasana
- *Chakrasana
- *Thiryak bhujangasana
- *Vruttasana

The asanas meant for the heart ,keep the lungs healthy.

Pranayamam

- 1.Anuloma-Viloma
- 2.Bhastrika
- 3.Kapalabhati
- 4.Gamana Pranayamam
- 5.Ujjai

DIGESTIVE ORGANS (STOMACH)

4.THE DESIRE OF THE STOMACH

I introduce myself to you

Every day you take meals twice punctually.You chew your meal often.Where does the food go?How does it change? Have you thought of these things before?

The food you eat through the mouth gets mixed with saliva and joins me.I am called the stomach.

My Structure:I am a small part in the entire digestive system.I look like a deflated ball.I have thin muscles.When I get food I get myself expanded like a bag.I am contracted after the food is

digested. I am one of the important organs of your body. You often think of me. I am the facilitator in the process of digestion. Though I do not look lovely, I undertake all activities to keep you happy.

My Functions

The food you eat is mixed with saliva before it reaches me. It is merged with some digestive juices. It goes through the walls of intestines. Nutrients are mixed with the blood in the process. My walls are built with thin muscles.

Mucus layers cover these walls. Digestive juices are produced in these layers. There are 3.5 crore glands in my layers. They generate hydrochloric acid which provokes the enzyme, pepsin. Acids and enzymes turn our food into flour.

The food goes to the pyloric valve initially. Duodenum is at the beginning of small intestine. The nutrients from the food are mixed with the blood in small intestine.

My functioning depends on your food habits. If you eat non-vegetarian food there will be delay in the process of digestion. I usually do my work within two or three hours. If you eat such tasty food often the process of digestion gets disrupted. It is dependent on your physical labour and emotions. The decisions you take depend on the functioning of your digestive system.

The Symptoms I get and their causes

*If your stomach has burning sensation you should understand that there are more acids in me. They usually cause ulcers.

*Your food habits are responsible for the production of acids in the digestive system.

*You should avoid taking coffee, tea and drinks excessively. You should give up smoking. You should take moderate salt and avoid eating mutton.

*The digestive system does not work efficiently if you do not easily digest food.

*Indigestion and mental pressure lead to constipation.

You should take care of me in the following manner.

*Maintain discipline in your food habits.

*Food should not be eaten hastily. It should be chewed sufficiently and swallowed suitably.

*You should devote some time to physical exercise to keep your digestive system proper.

*Take integrated food for your health.

*Never eat food in excess of your hunger.

*Drink adequate water daily.

Do yoga asanas, pranayama and meditation to be free from diseases.

Good food is always required for my health.

Yoga asanas facilitating easy digestion

- 1.Dynamic Surya namaskars
- 2.Uttanapadasana
- 3.Arthakonasana
- 4.Pavanamuktasana
- 5.Trikonasana
- 6.Bhujangasana

Yogic Cure for the Stomach

- 1.Purnapaschimottasana
- 2.Pushpakasana
- 3.Dhanurasana
- 4.Uddyanabandham
- 5.Prashanthasana

Pranayamam

- 1.Bhastrika
- 2.Kapalabhati
- 3.Anuloma-Viloma
- 4.Nadishodhana etc.

Kriyas..

- 1.Agnisarakriya
 - 2.Nauli
 - 3.Shankhuprakshalana
 - 4.Vasthradouti
- Shareeramardana -rasopavasam
Shidhilasana-Yoganidra

Food and Taste (a box item)

The cells in the organs of the human body have certain age limits.After crossing certain age they are destroyed.In their places new cells take birth.Taste buds in the mouth are two months old.We can change our tastes after two months.Old cells are destroyed after two months.We make new cells like the food without salt and sweets.

The cells ,which are habituated to old tastes,give opposite signals to the new tastes.Newly generating cells are normally accustomed to the food without salt and sweets.The number of

new cells is less. There are more old cells. Hence we don't like new tastes as we have got our old tastes. Within two months old cells are dead. We should act with control to get our food without salt. It should not be difficult for us to eat food without salt and drink coffee and tea without sugar.

DIGESTIVE ORGANS (LIVER)

5. THE ADVICE OF THE LIVER

I am one of the internal organs of your body and I am large in quantity. I usually undertake great work. The digested food is supplied to me in the form of glucose through blood vessels.

I turn glucose into glycogen and store it for the requirements of the future. When the body requires energy, I change glycogen into glucose and supply it to the body. Do you know who I am?

I am known as the liver.

Do you know where I am found?

I am on the right side of the abdomen.

I weigh from 1200 gms to 1600 gms. I am twenty two centimetres wide and fifteen centimetres tall. I am ten centimetres thick.

I have sixty percent cells and forty percent bile carried by the blood vessels. I am divided into the right lobe and the left lobe. I may be compared to a chemical factory. I am responsible for various biochemical actions which promote the proper functioning of the body.

What is my task?

The food eaten needs bile for digestion. I send the bile to intestines and facilitate trouble-free digestion of fatty substances and proteins. Bile enables major chunks of food to be digested by dividing major chunks of food into minor chunks of food.

*I neutralise toxic material in the food by turning it into non-poisonous material in the process of digestion. I turn consumed liquor and other intoxicants harmless by all means. I also remove dangerous bacteria in your body

*If the level of glucose in your blood rises it will endanger your health. I turn excessive glucose into glycogen and give it to the body when it is in want of energy.

*Red cells in your body lose energy with the passage of time. I destroy such cells and generate new red cells in their place.

*I can recover my health when ninety percent of my organ gets damaged. I need sufficient rest to rebuild myself. I require proper treatment.

How do you know that I require a cure?

*When I fail to function properly owing to ill health your digestive power decreases and there will be bleeding. You find the influence of poisonous substances on your body.

*When the bile vessel is obstructed and the bile tube has any hindrance there will be an increase in bilirubin in your blood. It will cause jaundice. Your eyes will become green. Then you can understand that I am not alright.

The diseases that attack me

1. Jaundice: Jaundice is of three types. Some are very dangerous. This disease is caused by viruses which lead to Hepatitis A, Hepatitis B and Hepatitis C.

2. Liver Cirrhosis: The fat which enters me destroys my healthy cells. As a result of this, nutritious food is not supplied to me. This disease is caused on account of non-supply of nutritious food.

The following are some rare diseases which attack me.

1. Acute yellow atrophy
2. Cancer
3. Bile pipe disease
4. Excessive water in the stomach
5. White jaundice

Medical Tests Prescribed

1. Serum bilirubin
2. Serum Alkaline Phosphatase
3. Serum Albumin
4. Thymal turbidity test
5. Serum Transaminase
6. Plasma prothrombin time
7. Liver biopsy

Food to be taken

*When you suffer from jaundice you should take proteins in your food. Avoid taking oil and ghee.

*I should be given nutritious food for recovery.

*Liquor destroys my cells. Never consume liquor under any circumstances..

*Don't choose local medicine taken from unauthorised people.

Precautions for my health

- *Proper food at the right time
- *Clean drinking water.
- *Yogasanas
- * Pranayamam
- *Dhyanam

Yogasanas

- 1.Surya namaskars
- 2.Katichakrasana
- 3.Mareechi asana
- 4.Ekapada pavana muktasana
- 5.Purna paschimottasana
- 6.Vipareeta karani
- 7.Artha matchyendrasana
- 8.Yogamudra

Actions

- 1.Laghusanka prakshalana
- 2.Agnisara kriya
- 3.Kapalabhati

Pranayamam

- 1.Suryabhedini.
- 2.Udarashwasa kriya.
- 3.Bhastrika.
- 4.Nadi Shodhana

Nature Cure

- 1.Rasopavada once a week
- 2.Satvikahara sevana
- 3.Exercise-Free Walk

DIGESTIVE ORGANS (PANCREAS)

6.THE ENTREATY OF THE PANCREAS

I introduce myself to you

You eat food when you are hungry. Some times we take the food we like though we are not hungry. Your work is over by then. Who facilitates the digestion of the food you eat? I do. Your food can not be digested in the absence of pancreatic juice produced by me. You can not receive nutrients without my assistance.

I work without rest. I give fuel to the eyes and the heart for carrying out their normal functions. I provide energy to their cells regularly. I am doing all these things. Who am I?

My Structure: I am fifteen centimetres long like the tongue of the dog. I am in violet colour. I weigh eighty five grams. I am in the abdomen and at the back of the stomach. I am near the back bone. I am in the middle of the liver, the intestines and the kidneys. I am the combination of two glands, endocrine gland and exocrine gland. I usually seem to be one gland.

My Functions: I supply fuel to all cells in the body by providing glucose to them. The cells receive glucose through the hormone of insulin released by me. Insulin helps your food to digest soon. After the digestion of food, energy released through food is in the form of glucose. It maintains equilibrium among glucose reserves and controls diabetes considerably. When the production of insulin is decreased the blood can not supply glucose to the cells in the body. The cells require the fuel of glucose to discharge their duties. If they do not get glucose the organs of the body will not get energy. The food you take produces various chemicals. I control these chemicals and maintain equilibrium among them.

Trypsin: It digests proteins and facilitates the structure of cells in all organs of the body.

Amylase: It converts starch to sugar which is further turned into glucose.

Lipase: It converts fat substance to fatty acids and monoglycerides.

I weigh eighty five grams and produce one litre of enzymes.

I play a significant role by producing insulin. If insulin is not sufficient in your blood you will suffer from diabetes. Ten lakh cells in me work as factories for the production of insulin. They weigh thirteen grams. Though the weight is less the responsibilities are more.

The diseases that attack me

*When I do not function properly you have more hunger and more thirst. You experience indigestion. Your body does not get nutrients. Gradually you become lean.

*The sugar level rises rapidly and you have four litres of urine per day.

*If I fall ill the organs around me become diseased.It is difficult to undertake my surgery.
I have no alternative.

*Your stomach has unbearable pain when I become diseased.This pain occurs after the meal.This disease is known as pancreatitis. This disease causes harm to one's life.

*There are several reasons for my illness.You should take care of me from youth.You should take proper food under all circumstances.

Food Restrictions : Those who suffer from pancreatitis should reduce fatty substances in their food.They should take proteins.

The following asanas help your body in controlling type-2 Diabetes.

- 1.Trikonasana
- 2.Kati chakrasana
- 3.Surya namaskars
- 4.Ardhamatchyendrasana
- 5.Uttanapadasana
- 6.Pavanamuktasana
- 7.Sarvangasana.
- 8.Uddyanabandha
- 9.Dhanurasana
- 10.Padachakrasana
- 11.Sethubandhasana

Pranayamam

- 1.Rechaka pooraka
- 2.Bhasthrika
- 3.Nadishodhana

Dhyanam

Prashanth asana

DIGESTIVE ORGANS(INTESTINES)

7.THE PRAYER OF THE INTESTINES

Who are we?

You eat various types of food from the morning You wake up to the night and go to bed. You also drink water. These things are digested and they give energy to your body. The waste material is sent for excretion. All these things occur after you have taken food. It starts with your saliva and ends with us. You have understood who we are.

You have guessed us correctly. We are the small intestine and the large intestine. Without us your food does not reach your body.

Our Structure: We occupy a major part in your stomach. Our structure is crooked. We remind you of our existence making various sounds and undergoing pain. We are two. First of all you should know the story of the small intestine.

Small Intestine: I begin with the last part of the stomach. The first part of mine is known as duodenum. It is ten inches long. The second part is jejunum. The third part is ileum. I am the embodiment of these three parts. My length is from 24 feet to 30 feet.

Large Intestine: The first part of mine is cecum. It is six centimetres long and seven and half centimetres wide. Vermiform appendix is attached to cecum. I start from cecum. I am six feet long. I am also called colon. I am divided into four parts. 1. Ascending colon 2. Transverse colon 3. Descending colon 4. Sigmoid colon. My third part is rectum. My shape comes to an end at the top of rectum.

Our functioning: We are not ringed tubes. We supply the nutrients in your food to your body. Without us your food becomes poison. We supply energy and nutrients to all parts of the body. We provide glucose to the body through starch and sugar. We separate minerals and vitamins and supply them to the body. We convert proteins to amino acids and fat to fatty acids and glycerine.

We undertake this chemical management to keep your hunger fulfilled. We digest many materials except cellulose and send them to the blood and the lymph system. Our structure is conducive to digestion. In the process of digestion we find two litres of saliva, three litres of gastric juice and bile. Eight litres of liquids are helpful to the digestion of food.

The muscles in our parts churn the food. It takes three to eight hours for digestion. I send all digestive juices to the blood after digestion. The process of water extraction takes place between twelve hours and twenty four hours.

The diseases that affect us

*The water in the food does not reach the body some times. It leads to an unhealthy condition known as diarrhoea.

*If you do not drink sufficient water you are likely to suffer from dehydration and constipation.

*The digestion of your food depends on your habits, your behaviour, your joy and your sorrow.

*Our walls lose their strength as per your age. You find burning sensation in intestines as you grow old.

*When our inner parts are affected by bacteria intestinal flu, dysentery etc are the diseases that afflict you.

*Some people suffer from cramps as they take a little water while eating food.

*If you have pressures you will have ulcers.

Take the following precautions

*You should change your food as you grow old.

*Avoid taking fatty food because it takes a lot of time for digestion.

*Reduce gas-producing pulses in your food.

*Don't consume more chilli powder

*Fruits and greens should be taken afresh.

*Drink more water. Your peace of mind gives us tranquillity.

Yogasanas

1. Surya namaskars
2. Uttanapadasana
3. Paschimottasana
4. Janusheershasana
5. Arthavakrasana
6. Navasana

Cure for Intestines

1. Arthamatchyendrasana.
2. Uddyanabandha
3. Tholangulasana
4. Arthakonasana.
5. Sarvangasana
6. Prashanthasana

Pranayamam

1. Anuloma-Viloma
2. Bhastrika
3. Kapalabhati

4.Nadi Shodhana

Body Massage-Uddiyanabandha kriyas

- 1.Agnisarakriya
- 2.Nouli.
- 3.Shankhu Prakshalanam
- 4.Vasthradouthi
- 5.Rasopavasam
- 6.Shithilasana

UDDYANA BANDHA

After the process of *Kapilabhati* three breaths should be followed.After exhalation the abdomen is pulled inwards holding the breath outside.After ten seconds it should be relaxed.It should be done six times.

Uddyana Bandha is practised for the purification of *navli*.The functioning of the glands becomes active.Large intestines are excited.The acts of digestion and excretion are easier.We can be cured of the diseases afflicting the digestive system.

EXCRETORY ORGANS (KIDNEYS)

8.THE INSTRUCTION OF THE KIDNEYS

We,twins,are known as kidneys which are recognised as vital parts.We play a predominant role in your body.We do the work together.We resemble each other.That's why we call ourselves twins.We are as significant as the heart for your life.

We are like bean seeds.We weigh from 130 gms to 170 gms.We are eleven centimetres long, five to six centimetres wide and two and a half centimetres thick.We are wheat-coloured.

Though we are small in appearance we undertake tremendous work.You wonder at our performance.You doubt how we can do such work.You should take care of us to protect yourself.

Our Functioning :Your food undergoes transformation through chemical action in the process of digestion.The energy,generated through the food,is supplied to the body.Toxic and waste materials are produced by metabolism.We push such toxic and waste materials out of your body like flush in your toilet and protect it under such circumstances.

Our Structure:We are at the top of the abdomen on either side of your back bone.Our right part is a little higher and our left part is just lower in positions.

We are divided into three significant parts.
They are-

- 1.The Cortex
- 2.The Renal Medulla
- 3.The Renal Pelvis

The outer region of ours is known as the cortex.It contains the nephron which is the basic filtration unit of the kidney with thin-walled blood capillaries.The renal medulla has interlobar arteries.The nephron filters the blood and prepares the urine The urine so produced is sent into the urinary tract through the renal pelvis.

We have ten lakh nephrons which filter the blood ultimately.The urine is a liquid formed out of the filtration of the blood.

Our Duties :

*Though your external body usually gets tired and takes rest we have no rest at all for we work all the twenty four hours.If we are not at work your life will be under threat on account of the increased urea in your blood.

*We send out one and a half litres of urine every day.

*We filter 120 CC liquid through nephrons and keep glucose,vitamins,amino acids,phosphate and sodium chloride in the blood.

*We purify blood several times and send out waste materials in the form of urine.We keep essentials in the body.

*The pituitary gland existing in the brain supervises how much water and salt the body requires and gets the work done by us.

The Symptoms of Diseases We Get

- *The face and the legs are swollen with water.
- 2.The protein,albumin,goes through the urine.
- 3.There is a difference in the discharge of urine.
- 4.Some people have stomach ache and others have back ache.The urine is discharged in a little quantity several times.There will be vomiting for several times.

*If the nephron tubes are damaged the urea level in the blood increases precipitating blood pressure.

*The eyesight becomes sluggish.

*The people above 30 and below 50 are likely to have stones in us on account of their food habits.As a result they have various symptoms of diseases.

Precautions to be taken for our health

*Drink sufficient water to avoid the formation of stones in us.

*Be careful about taking healthy food.

*Abandon drinking and smoking.

*Visit the doctor immediately after you notice the symptoms of any disease.

*Get the tests done to know the condition of your kidneys.(Urine test,Blood urea estimation,creatinine test).Get C.T. scanning and Renal angiography on the advice of the doctor.

*Take your food according to your age.

*Do physical exercise and yoga asanas regularly.

*We keep your health as long as you take care of us.

The following yoga asanas are good for our health.(Spend at least one hour on asanas.)

- 1.Surya namaskars
- 2.Vyaghrasana
- 3.Navasana
- 4.Sarvangasana
- 5.Vishishta bhujangasan
- 6.Tadasana
- 7.Kati chakrasana
- 8.Tiryak tadasana
- 9.Udarakarshanasana
- 10.Gomukhasana
- 11.Mulabandham
- 12.Uddywnabandham

Pranayamam

- 1.Bhastrika
- 2.Other pranayamams

3. Massage
4. Yoga nidra

Kriyas

1. Laghushanka Prakshalana
2. Nethikriyas
3. Nauli

The Body is Better than the Mind

Some people are fascinated by certain things in the society. Their minds are affected by those factors considerably. The mind gets itself attached to bad things on account of their attractions. The body differs from the mind in this respect. The body takes the food taken. It differentiates good and evil in the food. What is bad to the body is sent out of it through excretory organs. We can say that the body is better than the mind.

BE ALERT ABOUT YOUR ORGANS

1. THE BRAIN (MONOLOGUE)

The ladies who become mothers should realise that the brain of the child needs nourishment for almost two years. They should know that the brain never gets nutrition during adolescence. It is essential for the brain to receive proteins, fatty acids, iodine etc for its growth.

2. THE BEAT OF THE HEART

During pregnancy the lady should take nutritious food for the structure of the heart and its growth. She should drink sufficient milk. If there is fat and cholesterol in the blood it leads to high blood pressure and cardiac diseases. She requires physical exercise and meditation for her health.

3. THE APPEAL OF THE LUNGS

Our houses should have proper ventilation. The respiratory organ should practise pranayama to stay healthy to fight atmospheric changes. Polluted environment, drinking, smoking etc. damage the health of the lungs.

5. THE DESIRE OF THE DIGESTIVE ORGAN

The food we eat should be commensurate with our hunger. We should observe fast in case of indigestion. We should drink at least three litres of water. We should add greens, fruits, vegetables

and fibre items of food to our main food. Fats and oils should be taken moderately. Devote some time to Surya Namaskars every day. You should know that appropriateness of your food decisions have relationship with the state of your digestive organ.

5. THE ADVICE OF THE LIVER

High quantity of fat and drinking are twin enemies to the liver. Fats, butter, oils, meat etc. should be controlled. The food using jaggery is beneficial to the lungs. The disease of the liver is a secret enemy. The disease is normally known after the loss. It is a must for the people above forty years of age to get the liver tested twice a year.

6. THE ENTREATY OF THE PANCREAS

Some people have an erroneous notion that they suffer from diabetes hereditarily. This illusion is the reason for many young people to contract diabetes. Excessive food, unusual weight and loss of physical exercise and mental pressure destroys the pancreas considerably. We need medical tests for the confirmation of diabetes. It can be avoided in advance through yoga asanas. After the confirmation of diabetes we can control it through the practice of yoga asanas.

Medical experts in the corporate sector express the view that the practice of yoga is scientifically accepted as the controller of diabetes.

7. THE PRAYER OF THE INTESTINES

The intestines turn the food into energy in the process of digestion. They weaken our constitution gradually when they are ill. When negative bacteria enters the intestines they cause gastroenterological problems leading to the diseases of the stomach. We should observe *rasopavasa* once a week. We should apply enema once in two months.

8. THE INSTRUCTION OF THE KIDNEYS

Sufficient water, limited salt and sugar and moderate proteins lessen the labour of the kidneys and prolong their functioning. The observation of fast in case of indigestion enable the passage of urine and defecation providing rest to the kidneys.

Achirena sadurbuddhi: pashchapena yujyate

If we behave carelessly with bad habits in our youth we will have to repent of our actions till the end of life.

***Shareera madyam khalu dharma sadhanam
Dehe saroge thu na cha artha siddhi:***

The body is the chief of the virtuous instruments.No desires can be fulfilled when it gets diseased.

WORDS AND EXPLANATIONS (ALPHABETICAL ORDER)

Agnisar Kriya: It is concerned with the expansion and contraction of the muscles of the stomach.This *kriya* removes the toxins from the body and enhances its immune system.

Anuloma Coloma: It is a kind of pranayama, practised with two nostrils.You inhale through one nostril and exhale through the other.It stabilises the nervous system.It cleanses the lungs and enhances immunity.

Ida and Pingala:According to *yoga shastra* the left part of breath is usually done through the Ida nerve and the right part of breath is carried on through the pingala nerve.

Ujjai:As per *Ujjai Yoga* both inhalation and exhalation are done through the nose.It increases concentration and immunity.

Uddyana Bandha:It involves the exhalation of all the air from the stomach,pulling the abdomen backwards while holding the breath and then releasing the abdomen after a pause.

Kundalini Shakti :On the basis of prolonged experience of *yoga* one can awaken the energy that lies at the base of the spine until it is activated and channelled through the *chakras* in the process of spiritual perfection.

Gamana Pranayama:We do this *pranayama* exercising self-control in the process of walking.

Jyothi thrataka: Viewing the light of the lamp steadily for composure.

Thrataka:Looking at a dot fixedly for steadfastness.

Nadeeshodhana:*Pranayamam* intended to purify the blood and the respiratory system through the nostrils.Equally deep breaths are taken rhythmically by the nostrils and they increase the oxygen in the bloodstream.

Netikriyas: We bend the body forward and take in the salt water from metal pot having a tube through one nostril and flush it out through the other nostril.It is known as *jalaneti*.It is a technique of cleansing your nasal passage by removing the mucus and other blockages.We use cotton thread in *sutra neti*. We take in cotton thread from the nostril and take it out of the mouth.It cleanses nasal passage.We can churn the thread using the ends of the thread.

Nauli: The process of holding the breath by pulling the abdomen behind the rib cage and releasing the lock slowly in the standing posture.

Prashantasana: *Prashantasana* is practiced at the end of yogic exercises. It is also called *shavasana*.

Bhastrika: This *Pranayamam* treats the stomach as bellows and moves the abdomen several times using deep breaths.

Yoga nidra: It is the complete rest given to the internal organs of the body and the mind. Yogic sleep is induced by guided meditation.

Rasopavasam: It is a fast observed with limited fruit juices.

Rechaka Pooraka: It is *pranayamam* intended to expand and contract the abdomen through inhalation and exhalation.

Vasthradhouti: This yogic exercise is intended to cleanse the intestines enabling the person to swallow a wet light cloth gradually.

Shareeramardana: It is the yogic process through which the body is massaged with oil.

Shithilasana: In this yogic exercise one lies upside down, folds one leg and one hand and gets himself relaxed.

Sheetalee: This *Pranayamam* enables a person to stretch his tongue outwards. He inhales the air with the tongue stretched and exhales the air through the nose.

Shankhu Prakshalana: It is a procedure to cleanse the intestinal tract so as to clean impurities by the oral administration of salt water.

Suryabhedana: This *Pranayamam* enables the person to inhale deeply through the right nostril and hold the breath for a few seconds. He bends his head towards the chest and exhales through the left nostril.

Sangeeta Shravanam: Getting oneself delighted by listening to melodious music as a yogic practice.