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PHYSICAL TRAINING THROUGH CORRESPONDENCE**LESSON 3.**

THE CORRECT CARRIAGE OF THE BODY:- Man is an up-right being. The muscles of his body are designed to hold him up-right. This must not be forgotten at any period of one's life. Straightness and Strength go together. Straightness leads to shapeliness. One who habitually 'Gives' at the waist is weak. A straight body is shapely even if it is built slender. And a warped body has neither shape nor strength: It is ugly—positively ugly.

A STRAIGHT BACK:- The strong and healthy man, walks straight, talks straight and sits straight. He has a powerful neck. On his back run two long and thick cables of muscle, parallel to each other, on either side of the spine. On the back of his thighs are swelling curves of muscle, where an ordinary man's leg shows flat as a board. The muscles of his calf are deep from front to back. He possesses more nerve energy than the average person.

MR. EDWIN CHECKLY, THE Natural Strong Man, said, " ALL THE MUSCLES OF THE BODY MUST BE USED IN THE SUPPORT OF THE BODY ". This does not imply much labour. What begins as conscious effort, soon ends in a habit—and this habit becomes an ' EXHILARATION '. He adds, " A PROPER MAINTENANCE OF MUSCULAR ACTION WILL KEEP UP THE HEALTHY CIRCULATION AND MAKES IT EASY TO SIT FOR A CONSIDERABLE TIME WITHOUT FATIGUE ". The development of the muscles of the abdomen and the small of the back, makes it easier to sit straight, for, every gain in the strength and development of a system of muscles, builds up a power of involuntary action. In the trunk, the well-developed group of

muscles get a power to hold the body straight, with little perceptible effort.

STRAIGHTEN YOURSELF:- An average person like you may be sitting at a desk for at least four to six hours in the day. You can make your choice: slump and get your body warp and weak, or, learn "HOW TO SIT". When you learn to sit straight, your body gets shapelier and stronger all the time till the natural limit is reached. It is also likely that you walk some 3 to 4 miles every day, though not at a stretch. Are your legs any the better for it? Are they gaining shape and strength? If not, you are not walking correctly. Strength and Health are always at hand. They are yours, if you will take the trouble to earn it. Bear these four things in mind always. GET YOUR SPINE STRAIGHT; LIFT YOUR CHEST UP; RETRACT YOUR ABDOMEN IN; KEEP THE MUSCLES IN A SEMI-TENSED CONDITION. And, you will be able to sit on your seat with a straight spine for hours together. Once you get into action, you must be able to move with uncanny speed. You must bring your heart and lungs to such a condition and co-operation, that you never pant for breath nor get red in the face, under any sort of strain.

YOUR POSTURE:- If you have been sitting in a cramped position for some time, you usually get up, straighten yourself, and yawn deeply; stretch out your arms, and, perhaps, give a twist or two to your spine. This is often involuntary and will no doubt refresh you. If your habits of posture were so good that you never get cramped or stiff or tired, and if you cultivate the habit of standing in a position of readiness, and alertness, you will not have to think about it.....your body GOES into that position automatically. I do not ask you to sit or stand or walk bolt-upright or inert as iron. That would be ugly and ungraceful.

Every time you relax unconsciously, you warp the spine and cramp the abdomen. Straighten the SPINE, immediately, LIFT the CHEST off the abdomen and retract the drooping abdomen.

RELIEVE UNDUE PRESSURE AGAINST THE ABDOMINAL-VISCERA. STRAIGHTNESS IS THE 'SIGN OF YOUTH. Cultivate' STRAIGHTNESS, and you prolong and intensify your YOUTH. Bodily erectness depends upon maintaining the straightness of the spine. If you drift into careless habits of sitting, standing and walking, the body's weight is thrown on the bones of the body and the spine. The sign of infirmity and old age, is made more and more

pronounced, with the result that the body itself gets actually warped into a round-backed, flat-chested, distended-abdomen type. By cultivating a straight-spine, you do much more than straighten the back muscles. Your chest is lifted up, giving more room for the lungs. The abdominal organs are relieved from the pressure, which used to interfere hitherto with their normal functioning. You will not only give the muscles of the body their natural work—EXERCISE—but also get the benefit (1) of a better oxygenation of blood, through using more lung capacity and (2) of more quantity of blood from a better functioning of the digestive organs.

SPINE ERECT:- A chief result of this is the cultivation of a broad and powerful back. It soon becomes an easy habit for you to keep always erect; sitting, walking or standing. The idea is not to hold yourself rigid like a drill-sergeant. If you can gain enough mastery over your spine, it eliminates the outward curves at the shoulder level, you will set free the ribs, and breathing becomes easy and natural. If you reduce the forward curve at the waist, you automatically put the abdominal organs into a better working position. This relieves the pressure from the nerve centres in the abdomen, and a better blood-supply is ensured to the nerves, the digestive organs and the ductless-glands.

STRENGTH AND STAMINA:- Strength is a quality. It is an expression of innate vitality and nerve energy. A back can be strong even if it be not very broad. Moderate-sized lungs can be strong lungs, if they function with ease, even under continued strain. (So too, a strong stomach means NOT that the walls of the stomach are thick and tough; but, that this digestive apparatus functions vigorously.) In a strong man, this inner strength should predominate. So, to become strong, you will have to train yourself in a way that increases your stamina. NO STRENGTH IS WORTH POSSESSING UNLESS IT IS BASED UPON ENDURING HEALTH, AND HEALTH IS THE TRUE EXPRESSION OF THE CORRECT FUNCTIONING OF ALL THE INTERNAL ORGANS.

THE DANGER OF A CURVED SPINE:- The muscles of the trunk are set like a corset. They are designed to keep the body erect, giving enough room, for the vigorous functioning of all the digestive organs, besides keeping them to their respective positions. Naturally, when the muscles of the back are relaxed, the spine takes a forward curve and the pressure of the trunk is thrown upon the abdomen. The diaphragm is pressed down and,

this, in its turn, puts pressure over the stomach, the liver, and the transverse-colon. These, in their turn, create pressure over the small intestines. The entire process of digestion is thus slowed down and impaired. This may even result in indigestion or constipation or both. The liver, pancreas and other vital organs of the digestive system, may soon get out of order, and troubles start one after another. The lungs, too, get robbed of their full freedom of work, and oxygenating process of the blood is lowered. Besides all these, there is undue pressure put on the heart. In short, sitting or standing, walking or working with bent spine, is unnatural and devitalising.

Young men in class-rooms and in private studies, officials and clerks in their offices, work with spines bent, throwing all the weight of their body on the table or the desk before them. I have seen them with their pens or pencils almost poking into their eyes. They work on in this posture, four or five hours per day; the curve in their spine becomes more and more pronounced. Devitalisation and old age, set in before their time, when they ought to be in the prime of their lives.

In a few more months or years, the process of their digestion gets thoroughly upset. Their faces no more glow with Vitality: the sign of vigorous youth and health. Doctors are approached to pull them up, perhaps with little success. Patent medicines, tonics, toners, nerve-builders, carminatives and laxatives are tried by hundreds without benefit. The ailments become chronic and life becomes miserable. Still they slowly drudge on, while the weakening process gnaws into their vitals, preparing them for their early graves. See, how, what began with the idea and feeling of an easy relaxed posture of the body, becomes the very cause of devitalisation, despair and early death. Do never forget for once this fundamental principle: that MAN IS AN UPRIGHT BEING and that every muscle of his body serves to hold him erect. It is therefore IMPERATIVE that the trunk which houses all the intricate organs of circulation, digestion, and elimination, ought to be kept STRAIGHT at all hours of wakefulness.

WHAT HOLDS YOUR BODY ERECT? Your bones are not intended to carry the weight of your body. The muscles of the body do that work, partly aided by the bones. There are the abdominal muscles pulling the thorax downwards: there are the muscles on either side of your waist, known as the 'EXTERNAL-OBLIQUES' to support the trunk from tilting on to the opposite

sides; there are the muscles on your back on either side of your spine called the 'ERECTOR-SPINAE' to hold the back upright and not let it fall forward. These muscles act, all antagonistically against each other. One pulls it down, while the other pulls it up. So, if one droops while walking, standing or sitting, it is not because of the abdominal muscles lacking strength, but because of the muscles of his back especially the 'ERECTOR-SPINAE', are weak. Obviously if one has drooping shoulders and a cramped chest, it is not on account of weak chest muscles-(Pectorals), but because, the muscles of his upper back are not strong enough to keep the shoulders in position. You now see, that all these muscles the Rectus-Abdominis, the Obliques, the Erector-Spinae and the muscles of the upper back, acting antagonistically, tend to keep the spine erect. Every internal organ has full freedom of movement assuring its correct functioning and ensuring health.

Most faulty postures are associated with physical and frequently, with mental fatigue. It is a common belief that faulty postures and fatigue, are interdependent and that the correction of the former favours the relief of the latter. Which came first, the hen or the egg, is perhaps after all unimportant, provided, the egg is capable of hatching into a chicken. Fatigue is always associated with bad posture. It is the correct tonus of the skeletal muscles that favours correct posture. This entails the least fatigue, for the laws of gravity and equilibrium are most completely satisfied thereby.

There is a natural tendency for the blood to stagnate and pool in the lower parts of the body, if the body posture is bad. To avoid this undesirable interference with circulation, the Vasomotor-Mechanism must make adjustments that will give enough tone to the blood vessels in the abdomen and legs, so that blood and lymph do not pool in those regions. It is interesting to learn that this volume-change in blood is greatest in subjects who (1) are tall, (2) are in poor training and (3) have fat and flabby legs; and are least in subjects who (1) are short, (2) are in good training and (3) have tightly-knit ankles and calves. It may be concluded therefore that the circulatory adjustments of posture are better in the physically fit, than in the physically unfit persons.

It has been increasingly realised that bad posture so common in these days - is responsible not only for actual deformities with their attendant psychological disabilities, but for many other troubles, such as Viscero-Ptosis, Constipation, indigestion, due to inadequate support of the organs by the abdominal muscles; or pains in the chest, abdomen or limbs due to pressure on the posterior nerve roots as they pass through intervertebral foramina. In all such cases, except where ossification (fusing of bones and ligaments) have taken place, re-education in correct body mechanics may be expected to effect an improvement.

Let us now consider the posture usually adopted by the town-dweller, the students, the office going folk and the business-men who have not taken any pains whatsoever with the welfare of their bodies. The head is carried in the peering position forward of the chest: chest sunk deep by contraction, due to the forward droop of the shoulders and to depression of the sternum (Breast-bone); the abdomen thoroughly relaxed and protuberant.

There is a well-known aphorism - more apt than elegant that "After forty man puts on weight in front and the woman behind." This is so universal that it is regarded as inevitable, but it is all due to sedentary life, wrong posture in body mechanics, soft eating and drinking, and neglect of exercise.

SIT TALL STAND TALL:—

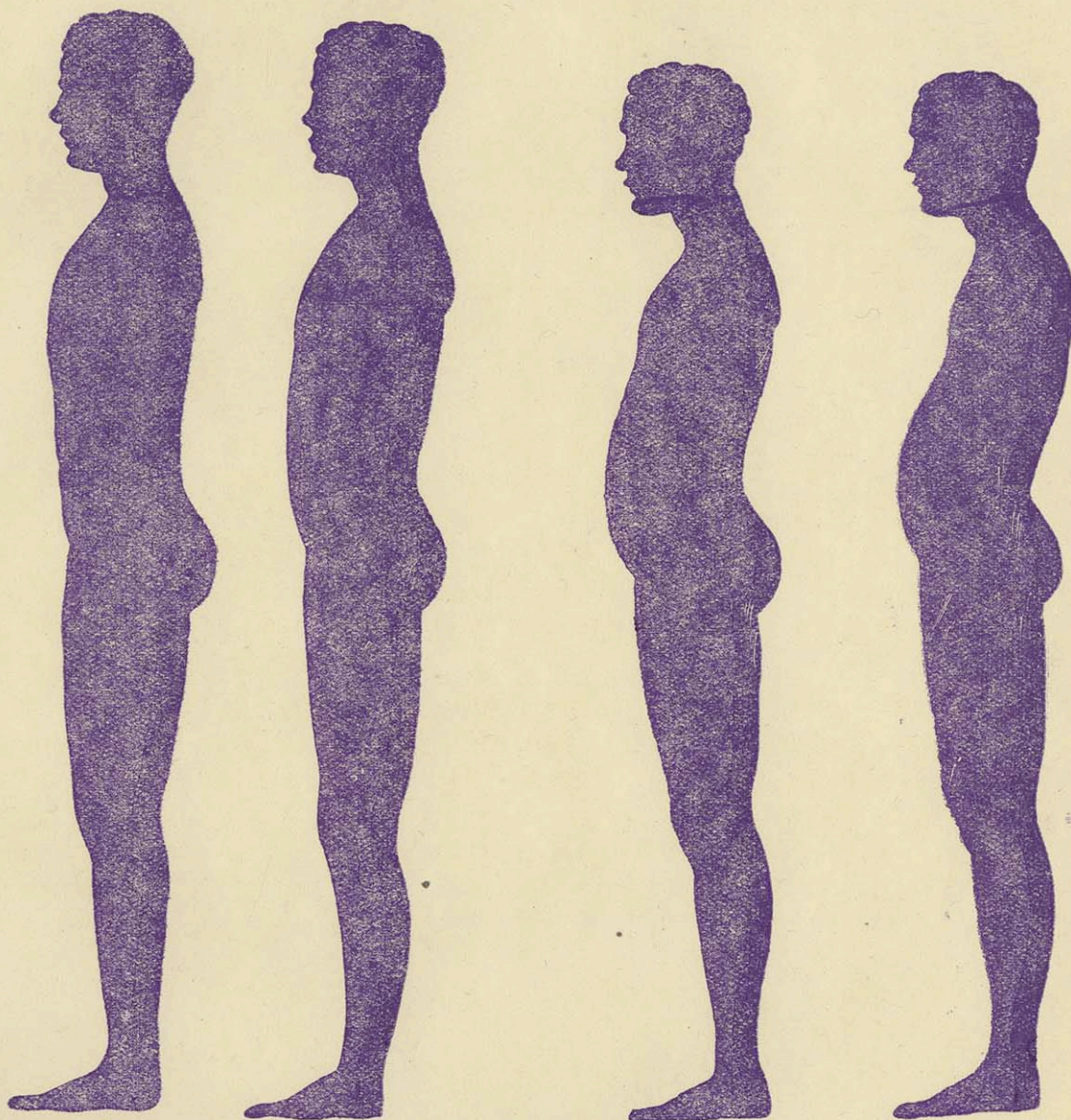
Is easier said than done. In both cases the abdomen is retracted, the curve in the small of the back is straightened, the thorax (rib-box) is raised, and the head is held straight above the chest.

I am giving you an indication of posture standards and explaining you for your benefits the good and bad of each of these four illustrations.

ILLUSTRATIONS OF POSTURE STANDARDS. (FIG. 9).

EXCELLENT POSTURE:—

(1) Head up, chin in (Head well-balanced above shoulders, hips and ankles). (2) Chest up - (the forepart of the chest to be held farthest forward). (3) Abdomen drawn in and kept flat. (4) Back curves within normal limits.



EXCELLENT.

GOOD.

POOR.

BAD.

Fig. 9.

GOOD POSTURE:— (Compare with the first).

(1) Head slightly forward. (2) Chest slightly lowered.
 (3) Abdomen in but not flat. (4) Back curves slightly in-
 creased.

POOR POSTURE:—(Compare with the first).

(1) Head forward. (2) Chest flat. (3) Abdomen relaxed
 bulging forward. (4) Back curves exaggerated.

BAD POSTURE:—(Compare with the first).

(1) Head markedly forward. (2) Chest depressed (Sunken).
(3) Abdomen completely relaxed and protuberant. (4) Back curves extremely exaggerated.

I invite you to compare your own posture with the first, i.e., the excellent standard. If at least you reach up to the (2) good standard, I have nothing to teach you. You are physically alright and can keep fit throughout your life. Only you must strive to gain the excellent standard soon.

So far as this country is concerned the excellent standard is just an ideal. In my experience of twenty years of training thousands of students, I have not found one, who was up to the excellent standard. Is not this a pity! And more; Not one in five thousand seems to compare any way at all with the excellent standard.

The second i.e. 'Good Standard' is also rare. When you recognise one, you discover a physical culturist, an athlete or a fine sportsman.

The last two types are the only ones met with in this country. The poor, third standard is our average high-school and college standard. Not bad shall we say? Most of our youths come under the last heading with sunken chest, protruding neck, distended abdomen, and the accentuated lumbar curve type. When will this be anywhere near the excellent standard! When?

There is really no 'Normal' type of posture, for no two human beings are alike in skeletal or muscular make-up, nor do any two people use their bodies in the same way. Generally speaking individuals are of three main types—the slender (Asthenic), the normal or the intermediate (Sthenic), and the the heavy (Hyper-sthenic) type. Each has its characteristic make-up.

The slender type is inclined to faulty posture the 'BAD' standard. The spine of such a person tends to bend back from its lowest part and curves forward to maximum Convexity in the Mid-lumbar region; with a defect called the 'LORDOSIS'. The pelvis tends to be tipped forward at the same time. Then the compensatory Kyphosis develops, the chest droops and sinks. The head is carried too much forward. These postures soon lead to the displacement of organs, producing Viscero-

Ptoisis (dropping of all the digestive organs into the protruding abdominal cavity). In all such cases there is pronounced digestive trouble and every sort of bowel complaints. This type of person is prone to Tuberculosis and Asthma.

The 'heavy' (Hypersthenic) type tends to bend backward at the Dorso-lumbar junction; it usually develops Kyphosis and rigidity of the thorax—with a big protruding belly. 'LORDOSIS' and 'VISCERO-PTOSIS' are uncommon in this type.

The 'normal' intermediate (Sthenic) type varies according to the type to which it is near. The spine may bend back at the point between those characteristic of the other two types.

BAD POSTURE STUNTS NORMAL GROWTH:—

Let me draw your attention once again to the illustration on posture standards. All the four drawings were made from the same model. (The same person having posed for all the four postures.) The feet of all are on one level, so are the knees, so too the Buttocks. But there are pronounced changes in the carriage of the trunks. The 'S' curve of the body noticeable in the third posture becomes more pronounced in the fourth. This has shortened the upper half of the body in the fourth posture. THE HEIGHT IS PARTICULARLY SHRUNK owing to bad posture and the bones in the spinal column have got adapted to this bad posture. Even their regular shape is changed to suit this wrong posture. Natural articulation is difficult and in some cases may not be possible at all.

BAD POSTURE PARALYSES THE SPINAL AND SYMPATHETIC NERVES:—

The soft fleshy cushions between each vertebrae have been much compressed and shrunk as the result of continuous pressure. The spinal nerves which run through each foramen of the vertebrae have also—due to wrong posture—been pinched. Not being properly nourished with blood they have suffered and have weakened the functioning of the organ or gland to which it branches out.

BAD POSTURE WEAKENS THE ORGANS OF DIGESTION AND ELIMINATION:—

All the organs of digestion and elimination are directly under the control of spinal and sympathetic nervous system. A weakened nervous system quite weakens the normal functioning of all these organs. The most powerful carminatives and laxatives will presently have no effect whatever worse shall the

strong medicines and laxatives destroy the mucous-lining of the alimentary canal and secretion of the various digestive juice becomes miserably scanty.

BAD POSTURE BRINGS ABOUT 'VISCERO-PTOSIS':-

Look, look at the bad (4th) posture again. I would draw your attention specially to the protruding abdomen. This is relaxed and sagging condition for the abdomen and all the digestive organs are pulled down from their natural positions. Under normal conditions the external musculature keeps these organs in their proper places. When these muscles become placid and weak, they droop, and the digestive organs, specially the stomach, the transverse-colon and the entrails naturally drop down too.

BAD POSTURE DEPRESSES THE CHEST. IT DOES NOT ALLOW THE LUNGS AND THE HEART TO GROW OR BECOME STRONG:-

I need not point out to you the way in which the chest is held in the ' BAD POSTURE '. It is too much forward. The neck is scrawny and drawn out. The chest is sunk. Often it is rickety and pigeon chest. The rib box is undeveloped and the lungs within are still more undeveloped. A poor lung like that does not require a strong heart. So the heart is also small in size and capacity. Blood supply and blood quality are both poor in such persons. Such people suffer from incessant colds, tonsils, adenoids, defective nasal passage and bronchitis. They are prone to dreadful diseases like Asthma and Tuberculosis.

I shall not dilate further on this subject of ' CORRECT POSTURE ' for I have talked enough of it already. If I have not impressed on you the importance of a correct carriage, all my training is waste: a waste of your money and time and of mine as well.

What matters is not the system of course you follow, or the person who trains you, but the fundamentals: (1) the carriage of your body; (2) the way you breathe; if these are not set right, you achieve nothing....N O T H I N G at all.

In all creation—where millions of living things are born and die, ' M A N '—'the crown and top of things' as he deserves to call himself—seems to be the only being who needs to be taught: ("HOW TO EAT", "HOW TO STAND", "HOW TO BREATHE").

I have spoken to you the correct way of breathing, in the First Lesson itself. In your next lesson I shall explain to you the scientific aspect of breathing and the secret of a long and happy life. With these two, I shall have done the best part of my duty towards you. But do not be afraid: I shall not stop there. I shall tell you enough to guard your health, if it is upset by carelessness, or owing to faults and to things beyond your control. I shall set you picked exercises to make your physique powerful, symmetrical and graceful.

THE SPINE IN RELATION TO THE CORRECT CARRIAGE OF THE BODY:-

I have spoken to you at length on the importance of holding the body erect at all hours of the day. You will naturally complain of its impossibility, since you have to be continually conscious of your posture. Well, what of that? You must take good care of your posture till your deliberate effort refines it into a habit of life. In order to impress upon you further of the importance of a straight spine both in relation to your health and poise, allow me to explain to you its anatomical and physiological importance.

THE ANATOMY OF THE SPINE:-The back-bone (the Vertebral-column) consists of twenty-six separate bones. The last two bones though consisting of several individual bones in early childhood, get fused together in adult age and form only two bones known as the 'SACRUM' and the 'COCYX'. The seven bones at the top of the spine situated in the back of the neck are named the 'CERVICAL-VERTEBRAE' (Cervix-neck). The next twelve bones that follow them are known as the 'DORSAL-VERTEBRAE' from which the ribs of the chest take their origin. The next five bones situated in the small of the back are called the 'LUMBAR VERTEBRAE'. The last two are known as the 'SACRUM' and the 'COCYX' respectively.

These bones are ranged one below the other in a continuous chain and each of them fits exactly with the one immediately above it, as well as with the one immediately below it. Each of them has the 'ARTICULAR-PROCESS' (the partially movable joint). Between each vertebra there is a soft pad of fibro-cartilage disc, to protect it from colliding into its immediate neighbour. There is a canal called the 'SPINAL-MEDULLARY-CHANNEL' running right through this vertebral-column, through which the spinal-cord passes. This spinal-cord consists of two nervous systems, called the 'CEREBRO-SPINAL' system and the

'AUTONOMIC' system. The latter is subdivided into two parts: the 'SYMPATHETIC' and the 'PARASYMPATHETIC'. It would be better for you to know something about these nervous systems too, in all its branches.

THE SYMPATHETIC NERVOUS SYSTEM:-This system consists of two gangliated chains on either side of the spinal-column, which lie embedded in the 'ERECTOR-SPINAE' muscles. They consist of MOTOR, SENSORY, SECRETORY and INHIBITORY nerves, which are distributed over the entire human body. They control the involuntary movements of circulation, respiration, secretion, digestion, and elimination. There are communications between these nerves and the 'CENTRAL-NERVES', known as 'RAMI-COMMUNICATES'.

NERVE PLEXUSES:- These are found both in the 'CENTRAL' nervous system and in the 'SYMPATHETIC' nervous system. A plexus is a tangle of nerves and blood-vessels. It is a centre of nervous influence.

CHIROPATHIC TREATMENT:- This method of treatment depends upon the correct diagnosis of the spinal-nerves and of relieving them of any pressure caused by the 'SUBLUXATION' of a Vertebra (Displacement of any Vertebral-bone through accident or otherwise, thus causing great pressure over the corresponding spinal nerve and almost paralysing it). The chiropractic claim is that much of the pain and disease to-day, is the result of the impingement on the spinal-nerves by vertebral subluxation at the point where they emerge from the spinal-column.

The subluxation may be caused not only by accidents such as wrenches, strains and sprains, but also on account of wrong carriage of the body.

The inter-vertebral cartilages may also become less elastic, fibrosed, ossified, or attenuated and so bring about this subluxation. The Chiropractor, by means of nerve tracing and palpation, finds the subluxation and sets the displaced vertebra in its correct place and position, thus relieving the pressure upon the immediate nerve or nerves. To recapitulate:- The life of every organ and part of the body and its movement—voluntary or involuntary—are ruled by nerve influence. Many ailments, physical and mental, are caused by interference with nerve impulse. For instance, when the nerves that control the heart are interfered with, there is

heart trouble and disease. In such case, the Chiroprath says it is unwise to attempt to 'Doctor' or 'Drug' the heart itself.

The Chiropractic way is to start at the other end; remove the cause of the trouble by removing the impingement on the controlling nerve or nerves. There are many cases of seriously displaced-vertebra and spinal-deformity which need, not only adjustment, by some one, skilled in such work, but also special exercises to strengthen the back and erector-spinae muscles not to let it subluxate (Slip) again. One who possesses a normal healthy spine can maintain it the same way throughout, by the cultivation of proper carriage of the body, and good exercises for the spine and the back. When there is marked tendency to spinal curvature and displacement of vertebra, many of the simple spine-stretching, spine-bending, spine-twisting exercises, which I shall explain in a minute will be of immense value. Mechanical adjustment alone is not sufficient in itself. The adjusted vertebra has always a tendency to slip into its old faulty position, partly because of going back to the bad old posture of the body, and partly because of the weakness of the muscles of the spine and the back. In my long experience of the Physical Culture life, as student and teacher, I have seen, learnt and taught, scores of these Spine-stretching exercises. After I studied and practised the 'YOGIC SYSTEM OF PHYSICAL CULTURE' I saw that most of these spinal exercises which I knew and taught, were at best a poor imitation of the 'YOGA-ASANAS', intended for the same purpose.

The 'YOGIC' school of Body-culture is older than 500 B.C. and is based upon the principles of 'HATA-YOGA'. It was originated and codified by the great RISHIS AND YOGIS of India, who in view of attaining self-realisation began first, with the cultivation of their bodies to a state of perfect health. These savants knew well enough of the importance of health and fitness, as a vehicle for mental and spiritual training. This Yogic System of physical training has a Psycho-Physical balance which most of our present day systems are lacking. The Yogic System aimed first at the correct functioning of the nervous and endocrine systems (Ductless glands of the body). The Respiratory and the Digestive systems came next. The Yogic system never paid much attention towards pure muscular development. The founders of the Yogic School of Physical Training were men, past-middle age, and they lived the life of recluses. They needed only that sort of physical training

which could keep them agile and light, physically fit and healthy. This school is native to India. I do not decry it. It began with a purpose of its own and was meant for the man who was in hotquest of self-realisation—one who wanted to regulate his Ahara (Food), Nidra (Sleep), Bhaya (Fear), and Maithuna (Lust); one who was devoted to religious austerity and did not like to suffer bodily ills during his SADHANA; one who had minimised his wants, and was deeply practising YAMA (Control) and NIYAMA (Regulation); one who desired to reduce the gross weight of his body and yet keep his Vitality in trim. This need of the SADHAKA was Parent to the Yogic school. Its rationale is as cogent and as well proven as any proven science. And it does benefit a man past forty.

Everything has its place. The Yoga-Asanas are not meant for the growing boys. The Asanas stretch out the muscles, tendons and joints; whereas, they should grow bigger and stronger in the growing boy. Let us not forget, that we (Indians) have to improve in stature and size, and that foundation for this should be laid at an early age while the body can still GROW. A system of training which can give full expression to all dormant growth should be resorted to. Yoga-Asanas CANNOT do this.

With Asanas one can build up good health and constitution, and keep them for some time. In my opinion every one should practise Asanas at forty or beyond. It is an age when the heart should be protected from strain, when slow ossification of joints, vertebrae, tendons and ligaments begin, when the arteries (blood-vessels) begin to lose elasticity and become hard and 'sclerosed', when changes occur in blood-pressure, blood-sugar, kidneys, glands, pancreas and liver and in other parts too many to mention.

It is wrong to put the young boys to Asanas, to teach them to contort their bodies and make them thin. That stunts them. We want our boys to grow tall and robust, with powerful shoulders, arms and legs, with necks muscular and without hollows or protruding collar-bones, with a spring in their gait and power in their movements. Here are a few Asanas culled from HATA-YOGA as the perfected spinal exercises to keep it supple and strong. Regular practice of these Asanas corrects the defective bends if any and helps to correct poise.

THE PASCHIMOTTANASANA:— The forward stretching of the spine. (To correct the 'Lordosis' of the spine).

EXERCISE: 10. Study Fig. 10. Lie on your back, legs (straigh and together) - arms stretched above head. Raise yourself up slowly to sitting position exhaling deeply and drawing the abdomen in, bend your trunk well forward and reach for your toes; if possible catch both feet

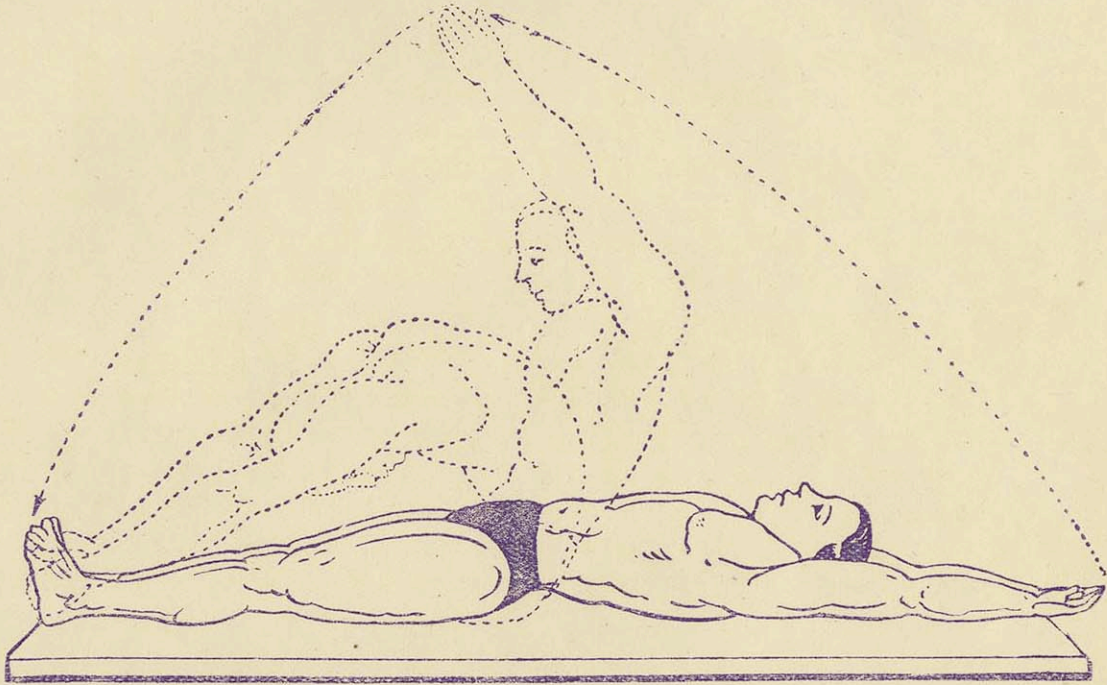


Fig. 10

with your palms. Try and touch your knees with your forehead, and maintain that position for 30 seconds breathing normally. Keep your knees rigid, abdomen well in, and carry the head nearest your knees. Then get back to starting position breathing in deeply.

This Asana is difficult for the beginner. Let him make a slow beginning, correcting the positions one by one. It may not be possible at all for an obese person to raise himself up, bend forward and reach his toes. He should secure his feet under some heavy object, say a heavy table or bench, or he may procure the help of another person to hold his legs fast to the ground. The maximum period for each full movement of this ASANA is one to two minutes. Repeat twice or thrice. When you are able to maintain the Asana for two minutes at a stretch, there is no need of repeating it.

THE BHUJANGASAN OR THE COBRA-POSE:- The backward stretch of the Cervical-spine and the Dorsal-spine. ('Kyphosis-Arcuta.)

EXERCISE 11: Study Fig. 11 closely. Lie on your stomach, keep the legs together, straight, and toes pointed; place the palms just beneath the shoulders (a beginner may keep them an inch or two forward) and go into the

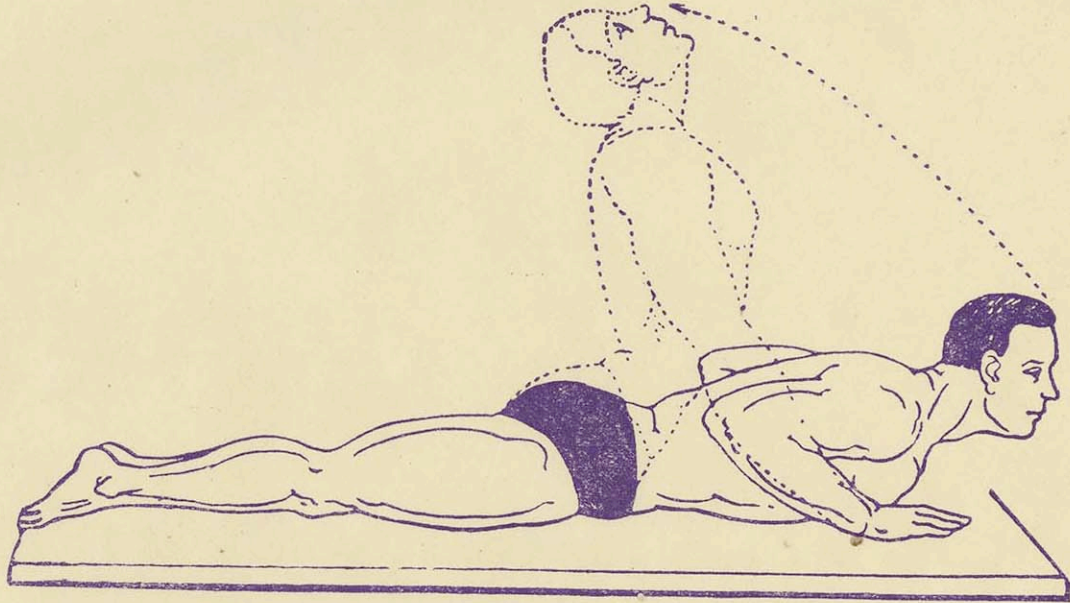


Fig. 11

position as shown in the dotted lines. Maintain the position for 30 seconds breathing normally all the time.

Take particular care not to lift your hips off the ground and not to throw the entire weight of your body on the supporting arms. This final posture is maintained by the powerful contraction of all the muscles of the back especially the 'ERECTOR-SPINAE' muscles. The arms serve to maintain the posture and the balance. The head must be thrown as far back as possible. The maximum period for this ASANA is two to three minutes. Repeat twice or thrice. When you can maintain the Asana continuously for two minutes, there is no need to repeat it.

THE SALABHASAN OR THE LOCUEST-POSE:- (for Lumbar-spine or the small of the back).

EXERCISE 12: Study Fig. 12 closely. Lie prone—feet together, toes pointed—arms full length close to the sides of your body, and palms turned upwards. Raise both legs together as high as possible with the knees straight and stiff from the hips down as in the dotted-line

exerting enough pressure against the ground from the wrist joints, the shoulders and the chin. Hold on for

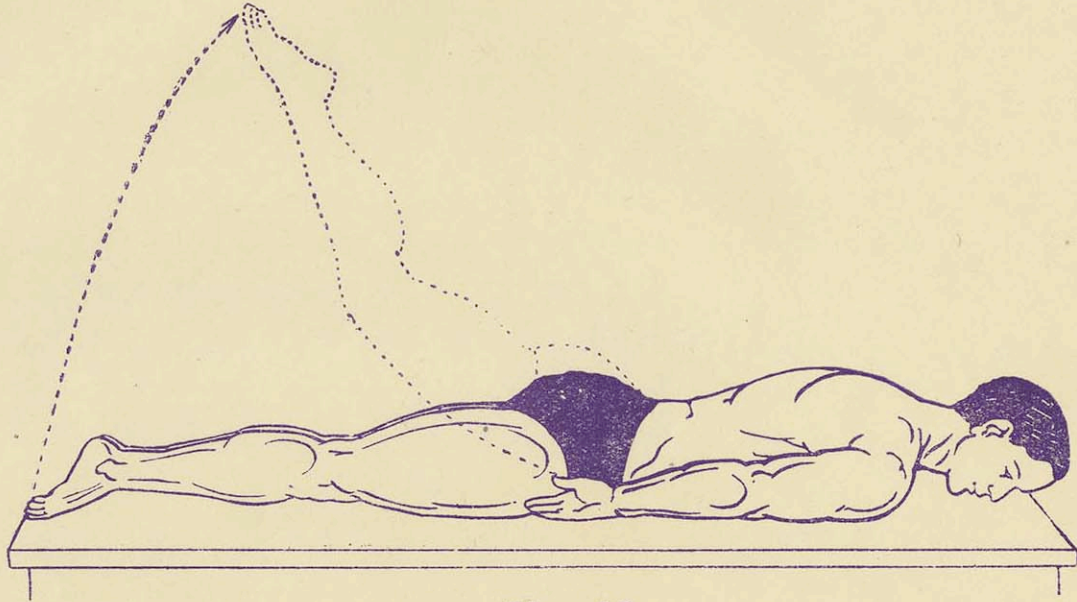


Fig. 12.

20 seconds breathing normally. The maximum time for this pose is a minute. Repeat twice or thrice.

DHANURASAN OR THE BOW-POSE: (for the entire spine).

EXERCISE 13: Study Fig. 13 closely. Lie prone—fold your knees, grasp both the ankles firmly with the palms—get into the position shown in the dotted line by

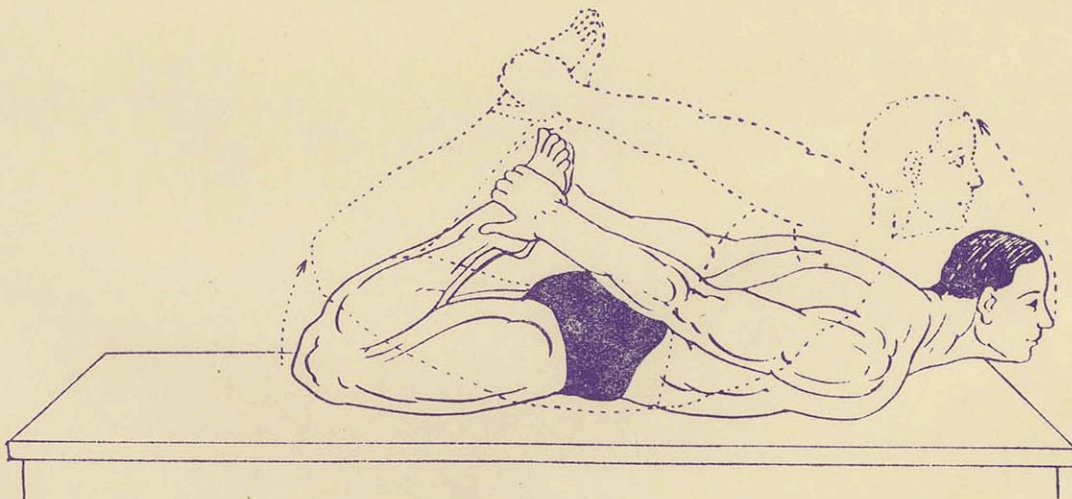


Fig. 13.

vigorously straightening the legs and raising the chest as high as possible and throwing the head well back.

Your body should resemble a bow. Maintain the position for 30 seconds breathing normally. The maximum period for this ASANA is two minutes. Repeat twice or thrice. There is no need for repetitions when you can maintain the ASANA continuously for two minutes.

Breathing must be normal in all these ASANAS. In the beginning you will repeat the ASANAS two or three times,— successively, maintaining the posture some 15, 20 or 30 seconds each time according to your ability. To increase one's height there is nothing better than to follow these spinal ASANAS and other stretching exercises, with all care and concentration.

EXERCISE FOR STRENGTHENING THE UPPER BACK:—

EXERCISE 14: Study Fig. 14. Hook the index and middle fingers of one hand with the corresponding fingers of the other, and place the hooked fists on the top of your head. Raise the shoulders as high as possible,

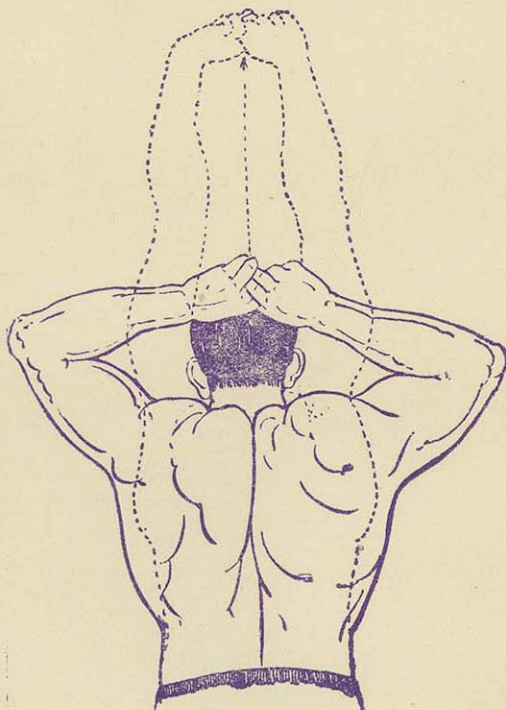


Fig. 14.

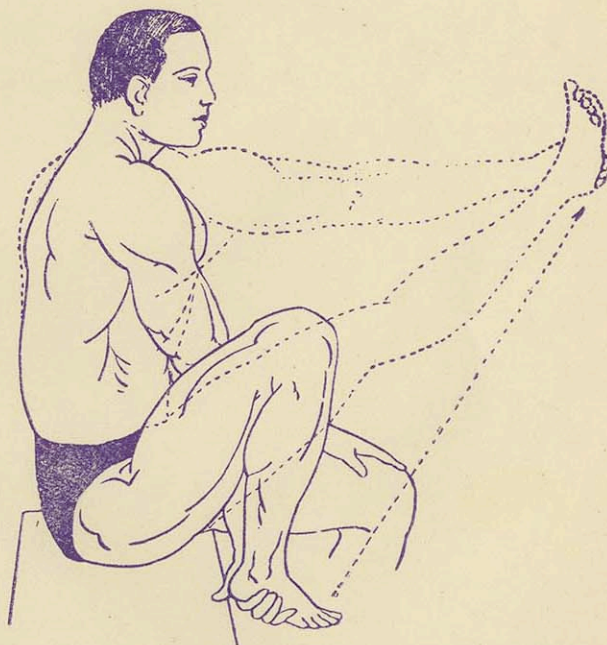


Fig.15.

till they almost touch the ears on either side. Now start pulling your arms strongly apart. (Do not relax this 'Pull-apart' position nor drop the shoulders till this

exercise be over). Stretch both the arms straight above head until they are fully straight as in the dotted line. Come back to starting position, still maintaining the 'Pull-apart'. This completes one movement. Perform eight movements adding two more a week till you reach up to twelve. Maintain a straight back and breathe in deeply as you stretch up your arms and exhale deeply as you come back to starting point. This exercise develops all the muscles of the upper-back and gives a good stretch to the 'Erector-Spinae' muscles.

EXERCISE 15: Study Fig. 15 closely. Standing or sitting SPINE ERECT, bring your right leg up and hold the heel of the same with your right palm exactly as shown in the figure. Straighten out your right leg fully, strongly resisting the movement with the right arm. Try and keep the spine as straight as possible, though perhaps you will have to give in a little at the finish. Let the resistance be strong and uniform throughout. Relax the leg back to the starting position and repeat the movement eight times. Inhale deeply as you stretch out the leg, and exhale deeply as you come back to the starting point. Take care not to curve your spine; for, it will completely spoil the effect of this exercise. Increase the number as in the previous exercise. Repeat this exercise with the left arm and left leg.

Here ends the third Lesson. It pays you to go through this lesson whenever you feel jaded and out of sorts. It helps you to keep in mind what you already knew but were perhaps forgetting.... THE NEED OF HOLDING THE SPINE ERECT. Yes, hold your " SPINE ERECT " at all hours of your wakefulness, until it becomes a natural, effortless habit.

Forget this and you will have forgotten everything about PHYSICAL CULTURE itself. With spine giving way into the wrong posture, you will be inviting ill-health, disease and shortened life. If you do not want your children to be born hunch-backs, dwarfs and weaklings, you will have to hold your own chest high and spine erect; so that you may give this PRECIOUS HABIT to them as a gift of heredity. And if they too, transmit to their children in turn, I am positive that we will be adding at least three inches to the average stature of our People besides a broad chest and a personality.

To become a specimen of physical manhood you have to work - work hard day after day, month after month, perhaps year after year. I shall hide nothing from you; but help you make a model of Physical Manhood. In these pages and in those to come I shall lay bare, all that twenty years of physical culture has taught me, has made me.

The fruits of my labour are yours. I have toiled for you with but one hope and one purpose - to help the Physical Manhood of India to come to its own. Its success or failure lies in you now.

Arrange your exercise programme henceforth as follows:-

(First day):-

Do only 'Dips' and 'Baitaks'. (One stretch of 'Baitaks' followed by two or three stretches of 'Dips'; again one stretch of 'Baitaks' followed by two or three stretches of 'Dips'; once again a stretch of 'Baitaks' followed by one or two stretches of 'Dips')..... Time limit to finish all the exercises is 35 to 45 minutes, including breathing time between each exercise.

(Second day):-

Perform all the three Neck exercises of Lesson I, exercises 7 and 8 of Lesson II. (You may now and then try the exercise 9 also of Lesson II) and all the exercises of this Lesson-No.3. Time limit to finish all the exercises is 35 to 45 minutes.

(Third day):-

Follow the first day's programme.

(Fourth day):-

Follow the second day's programme.

Continue in the same order and take complete rest on Sundays.

Your next lesson is all important. I shall be speaking to you about the 'Secret of Health and Longevity'. There is a straight smooth path, without ruts, bogs, or quicksands, without the least danger to Physical Fitness - and I shall lead you to it. On the next lesson depends your Physical Improvement, the safety and longevity of the most precious organ 'THE HEART'.