

PRIMER OF UNIVERSAL HEALING

A New Approach to Coronary Heart Disease

Dr. Ramesh I. Kapadia



**PRIMER
OF
UNIVERSAL HEALING**

A New Approach to Coronary Heart Disease

DR. RAMESH I. KAPADIA

FOREWORD

LARRY DOSSEY, M. D.



**NAVAJIVAN PUBLISHING HOUSE
AHMEDABAD**

CONTENTS

Section I

Introduction	5
Healing System	10
Coronary Heart Disease	13
Program For Coronary Healing	16
Stretching and Relaxation	22
Shavasana	39
Deep Breathing	41
Abdominal Breathing	43
Meditation	45
Visualization	52
Group Discussion and Sharing of Feelings	54
Dietetic Regulation	56

Section II

Stress	59
Yoga	60
Bio-medical Model	64

Bio-Feedback	67
Space - Time - Death	70
An Opportunity to Think	72
Feedback From Participants	73
The Author's Interview with A.I.R.	85
On life	92

INTRODUCTION

The middle of January 1988 turned out to be a veritable watershed in my career as a cardiac physician. I met a likeminded physician from USA, Dr. Larry Dossey. He was on a brief visit to India to deliver a talk on 'Medical Science and Non-violence' under the auspices of Gandhi Peace Foundation, Delhi. He also visited Ahmedabad and delivered two lectures on the same subject under the auspices of the Kamalnayan Bajaj Memorial Trust. In April 1991 Dr. Larry Dossey wrote a letter to me and also sent a gift of a book entitled 'Dr. Dean Ornish's Program for Reversing Heart Diseases without Drugs or Surgery'. On reading the letter and studying the book, I decided to meet and if possible, to confer with Dr. Dean Ornish, the author of this path-breaking book. It was my great fortune that on a lovely summer day on June 25, 1991, I had an opportunity to meet Dr. Ornish at San Fransisco. I was amazed to see 40 American patients with severe coronary heart disease experiencing tremendous benefit from a program of progressive deep relaxation and meditation which Dr. Ornish had undertaken for the last four years.

Coronary heart disease has so far remained a great enigma. Various research projects have been undertaken to unravel the mystery of this disease ever since the first study undertaken at Framingham, Massachusetts, U.S.A. as early as in 1930. Fat restricted diet had shown some improvement in the progress of this disease. Exercises like walking,

jogging, etc. have also proved helpful. Mental relaxation techniques, avoidance of alcohol and tobacco have also been taken up in certain projects to prove their beneficial effects in the treatment of coronary heart disease. However, this program of Dr. Dean Ornish was in more ways than one unique, and it impressed me with its totality of approach.

For a long time I have been pondering over the complex problems of coronary heart disease. Frankly speaking, what we know about the disease seems to be a tip of the proverbial iceberg. Indeed, much remains to be elucidated. However, I have felt all along during the course of my experience over 30 years in dealing with the patients of heart attack that **panic kills more people than the actual extent of heart disease. It is well known that sudden curtailment of blood supply to a part of heart muscles results in heart attack.** Experience has revealed that more often than not the approaches in dealing with the problem probably end up in adding to the patient's panic, notwithstanding the anxiety of the medical personnel to do their very best for the victims in desperate need of help. Theoretically, if one were to open the heart, find out the blockage in the artery and remove the blockage by surgical procedure, the object of restoring the blood supply would be achieved. But how can this be done without causing considerable trauma to the victim, since the surgical process inevitably brings about an increased demand for oxygenated blood by the heart muscle, thereby actually resulting in the extension of damage to the heart muscle, and thus aggravating an already critical situation? **The only logical and reasonable step which is applicable to a large majority of patients of acute heart attack is to reduce the demand for**

oxygenated blood by the heart muscle by sedating the victim and using drugs wherever feasible with a view to dissolving the thrombus in the coronary artery and relieving associated spasm by using a drug which dilates the coronary artery. In most of the cases, a sublingual glyceryl trinitrite and a tablet of disprin will suffice at the initial stage. However, the most important issue, it seems to me, is to reassure the patient and his immediate relatives that eventually all will be well. This extremely important aspect of reassurance is neglected because of excessive dependence on hitech measures and the diminishing doctor-patient relationship in the wake of medico-legal implications of modern medical practice. The importance of self-confidence on the part of the attending physician, his ability to reassure the patient and his relatives in the face of such an ailment, widely dreaded by the public cannot be easily exaggerated. It is this ability on the part of a physician which contributes a great deal in bringing about a favourable outcome in most of the cases.

After recovering from heart attack, the rehabilitation of a patient is of crucial importance. Here again, a routine approach of ascertaining the exact extent of coronary heart disease and dealing with it by angioplasty and bypass surgery has not made an appreciable difference in reducing either mortality or morbidity of this disease. A simple cost-effective approach is very much needed for a disease of such dimension almost engulfing the entire civilised world. It has been observed that almost fat-free strict vegetarian diet, modest exercise like walking on a level for about 45 minutes everyday, the giving up of tobacco and excess of alcohol, control of diabetes and blood pressure whenever present have resulted in some mitigation of the incidence of disease.

Various drugs used till today for reduction of increased cholesterol have been invariably accompanied by unacceptable side effects. The program developed by Dr. Dean Ornish throws new light and raises the hope of solving this complex problem of coronary heart disease.

We started our program here on these lines on 2nd October, 1991, incidentally coinciding with Mahatma Gandhi's birthday. We meet regularly from 6 to 7 p.m. on Tuesdays and Fridays every week. During this short span of about a year we have very satisfactory feedback from the participants of our program. The capacity for exertion involved in their daily routine has increased, frequency of chest pain has decreased, and the dosage of drugs has been reduced. In many cases Treadmil ECG test has become normal, and left ventricular function as studied by 2-D echocardiogram has also improved significantly. More than that, almost all of them admit to a feeling of relaxed attitude towards daily stresses of existence. There is also a feeling of connectedness and brotherliness amongst the group. Seven of our participants were given EEG test. All of them, after only two minutes of meditation, showed very prominent alpha activity in their EEGs. During alpha activity, a sympathetic activity, the activity of flight and fright response, is at its minimum and health-giving neuro-peptides and endorphins are secreted, resulting in healing.

The technique of progressive deep relaxation and meditation as taught in this program is extremely simple and yet very effective. The concept of achieving perfect relaxation of the mind is evolved as follows:

1. It is difficult to relax the mind even for six seconds.

2. Relaxation of the body makes relaxation of the mind easier.

3. Even relaxation of the body is not easy to achieve on its own. However, if a muscle is stretched and then relaxed, the relaxation becomes easier.

4. In the progressive deep relaxation, groups of muscles of the body are stretched and relaxed one by one, leading to the complete relaxation of the body from head to toes. We call it 'Shavasana'.

5. Another very important aspect of stretching and relaxation exercise is to keep one's awareness in the present, that is, on the very parts of the body which are being stretched and relaxed.

It has been observed that during 16 hours of our waking time, our awareness is in the present for hardly 10% of our waking time, i.e. one and a half hour only. Most of the time our awareness is in the past or the future almost in the following strain:

"I should not have done that..." "I hope things turn out that way..." "I wish that had happened" and so on... .

Maximum emotional stress occurs when our awareness is in the past or the future. Shavasana performed in this manner prepares the participant for meditation. The technique of meditation is again very simple.

HEALING SYSTEM

Over the years, the medical science has identified the various primary systems of the human body : Circulatory system, digestive system, endocrine system, nervous system, autonomic nervous system and the immune system. Two other systems crucial for the proper functioning of the human body are frequently overlooked. They are the healing system and the belief system. They work hand in hand. The healing system is the way the body mobilises its resources to get well. The belief system is often the activator of the healing system. One's confidence or lack of it in the process of recovery from serious illness affects the chemistry of the body. The belief system is, it must be clarified, no substitute for competent medical attention of serious illness, or vice versa. Indeed, both are essential. The belief system is not just a state of mind. It is a prime physiological reality. The greatest force in the human body is the natural drive of the body to heal itself, but that force is not independent of the belief system which can translate expectations into physiological change. Everything, therefore, begins with belief. What we believe is the most powerful option of all. The main function of a doctor is to engage to the fullest the patient's own ability to heal by strengthening his belief system. About half of the people who have heart attacks never make to the hospital. An important contributing reason is that panic that accompanies the attack constricts blood vessels and imposes an additional and sometimes

intolerable burden on the heart. Panic thus adds acute stress to the existing disease. It creates an environment conducive to illness and antagonistic to treatment. No responsible physician would purvey panic, whatever his obligation to the truth. A responsible physician is only he who spurs up the patient's will to live. The treatment of the patient would doubtless be incomplete if it is confined to the diagnosis and administration of medicines or the other procedures. Indeed, it becomes complete only when the patient's own resources and capacities are fully engaged.

What is the most painful aspect of modern medical practice? It is not whether most physicians are up to date in their knowledge or in their techniques, but whether too many of them know more about the disease than about the person in whom the disease exists. The overriding issue before medicine today is one not of proficiency but of humanity.

One of the greatest needs of medical education today is to attract the students who are well rounded human beings, who will be genuinely interested in people and not merely in the diseases that affect them, who can ably comprehend reality of suffering and not just its symptoms, whose prescription pad will not exclude the human touch and who will take into account all the forces that exercise a downward pull on the health of their patients.

Years before students file their applications for admission to a medical school, they find themselves pushed in a wrong direction. They tend to become drones rather than fully developed humans. They develop the habits of grade-grabbing that will get them into and through the medical school. This will not necessarily make them good doctors. Hypocrites, the father of medicine, was quintessentially

holistic. When he insisted that it is natural for the human body to heal itself (is medicatrix nature). He believed that the essential function of a physician was to avoid any treatment that might interfere with the healing process or that might do harm (premiun non nicer). Hippocrates also said, 'Save extreme remedies for extreme diseases'. 'I feel convinced', Cloud Bernard, a great medical researcher, wrote more than a century ago, 'that there will come a day when physiologists, poets and philosophers will all speak the same language.' The good physician is not only a scientist but he is also a philosopher. Drugs are not always necessary; but belief in recovery always is.

It is perversion of rationalism to argue that words like 'hope', 'faith', 'love' and 'grace' are without physiological significance. Indeed, the benevolent emotions are necessary not just because they are pleasant but because they are regenerative also.

CORONARY HEART DISEASE

Coronary heart disease is the single greatest cause of death in the Western world. Its incidence even in the developing countries is growing at an alarming rate. This incidence is attributed to the sedentary habits, rich fatty diet, high blood pressure, diabetes, smoking, alcohol and increased serum cholesterol. It has, however, been observed that in more than 50% of the patients of coronary heart disease, the said oft-repeated factors do not operate. Something else is happening in these individuals, who prematurely become the victims of coronary heart disease without any of the known risk factors. On the other hand, it is observed that the mere control of risk factors does not always affect the onward march of the progress of coronary heart disease. The recent experiment of Dr. Dean Ornish clearly shows that when the risk factors are controlled along with the indepth stress management by the progressive deep relaxation, meditation, visualization, group discussion and the sharing of feelings, the results are amazing. An all-out comprehensive program has, therefore, been indicated to forestall the ravages of the disease.

One special feature that characterises a human being as distinguished from other animals in the world is that we possess the faculty of self-awareness. This is an attribute which is peculiar to our being human. A plant has life; an animal has also life plus consciousness. But the human beings have consciousness plus self-awareness. We are

capable of being aware of our own thoughts and capable of focusing our awareness on anything that we may wish. Most of the time our awareness remains focused on all the affairs of our mind related to our individual self. The moment our awareness is brought to the element, which is present in all of us and in all the manifestations of the universe also, boundless in space and time, the healing starts. The crucial point is how to bring our awareness to this eternal reality. The simplest method of achieving this great objective is meditation.

The golden quotation from the treatise on ‘Circulation’ written by Dr. William Harvey more than three hundred years ago summarises succinctly the mind-heart connection.

Every affection of the mind that is attended with pain or pleasure, hope or fear, is the cause of an agitation, whose influence extends to the heart.

- William Harvey, *De Motu Cordis* (1628)

With the passing of time, understanding of coronary atherosclerotic disease has further substantiated the observation of Dr. Harve. ‘CAD’ is no longer viewed as a static process of advancing atherosclerosis. It is rather a dynamic process, an emotional burst causing sudden spasm in an atherosclerotic coronary artery and clumping of platelets resulting in complete obstruction. Eighteenth century British Surgeon John Hunter, who suffered from angina for forty years also observed, ‘My life is at the mercy of any scoundrel who chooses to put me in a passion.’ Dr. Hunter dropped dead soon after an intense debate at the Hospital Board Meeting, emphasizing once

again the effect of intense emotion on heart.

Coronary artery disease remains an enigma. Exact etiology is not known. Tell-tale predisposing factors are heredity, hypertension, D-mellitus, high serum cholesterol with decreased concentration of H.D.L. and tobacco smoking. Medical treatment is aimed at reducing the need of oxygen by the myocardium, prevention of spasm and clot formation in atherosclerotic coronary arteries; surgical treatment (Angioplasty, CABG) restores the blood supply to the myocardium. Object of this communication is to highlight the beneficial therapeutic effects of progressive deep relaxation (shavasana), meditation, group discussion and sharing of feeling along with strict vegetarian diet low in fat and modest exercise like walking in the treatment of coronary heart disease.

PROGRAM FOR CORONARY HEALING

It seems to me that the most important part of this program is the technique of shavasana and meditation. The technique is simple and yet quite effective. The relaxation that is experienced by the participants is unique in the sense that they feel totally relaxed both in their mind and body. All the same, it is felt that there is something more than mere relaxation that is experienced by the individual who meditates. As emphasised time and again, our greatest limitation comes from our perception that we are individuals limited in space and time. David Bohm, the physicist of repute, observes that this feeling of separate identity as an individual is not separate whatsoever in the various observations made by modern physics. Similarly, our concept of time as a fleeting component having past, present and future is not supported by any experimental observations of modern physics, which considers time and space as a single entity. The concept of time as divided into past, present and future is purely for the convenience of our physical existence. When a patient of high blood pressure, during biofeedback therapy imagined that he was sitting on a lake of time instead of a river of time, his blood pressure got lowered. Most of the stress-related diseases are attributed to the factors of time - urgency. **During meditation, when a person assumes a comfortable posture either sitting or lying down and closes his eyes and brings his awareness to the process of breathing, he becomes one**

with his breath and experiences a feeling of connectedness with the whole universe. Again, there is an experience of the eternal present. This experience conforms with the ultimate reality which is enunciated not only by Vedas and scriptures but also by modern physics. That probably is the cause of total healing that follows the practice of meditation. The lifestyle changes and one turns into a strict vegetarian and a teetotaler. He is motivated by the experience of reality that happens during meditation. Dr. Dean Ornish observes that practice of meditation helped the participants of his program to change their lifestyle which would have otherwise been quite a formidable thing to do for an American. Moreover, becoming a vegetarian and giving up tobacco and alcohol improved the quality of meditation. Such indeed, is the happy cycle of events. This feeling of oneness with the universe and the experience of the eternal present also give rise to certain behavioural changes in the meditator which are altruistic in character. There is also a change in the perception of the meditator about the various events occurring in his life, both happy and unhappy. Fear and anxiety are replaced by a sense of security and self-confidence. So, there is a grand all-round benefit due to the practice of meditation as taught in this program. While writing this we have one full year's experience with about 200 participants and the feedback from majority of the participants is that the benefit derived by them by attending this program is instantaneous. The patients who have severe coronary disease admit of benefit which is even quicker than that of the patients who have got mild coronary disease. Such an enormous benefit to a person is a highly prized experience besides its salutary effect on the treatment of the

disease. This program has a potential to heal the society as a whole and, therefore, we thought of naming this activity as 'Universal Healing'. The title of this book Primer of Universal Healing also conveys modestly the same picture that emerges from a simple technique very easy to perform. It has a great potential of making the common man aware of his real identity and thus effecting healing.

The group discussion and the sharing of feeling, which is a part of the program also becomes very effective when it is preceded by the practice of meditation. The participants feel very much connected with one another and they frankly give vent to their feelings which are shared by the entire group. The various problems that are discussed in group meetings need not all have solutions. The mere discussion and sharing of feeling in that atmosphere takes away the burden of the problems. The practice of shavasana before meditation prepares the individual for meditation. Shavasana, as we know, stems from the progressive deep relaxation. It is achieved by prior stretching and relaxation of the group of muscles one by one as shown by the various stretching and relaxation exercises. As the father of medicine (Hippocrates) has observed, the mind is present in all the cells of the body and so when the body is relaxed during shavasana, the mind too automatically relaxes.

The Participants of the program may read the following to derive adequate benefit from it.

Bring your awareness to the present moment as soon as the program begins. Follow the yoga teacher's instructions carefully. However, you may not perform any of the exercises which does not suit you.

LIGHT EXERCISE

1. As you begin the exercise of stretching and relaxation, concentrate on those muscles which you stretch and relax. Stretch the muscles comfortably and then relax. Do not overstretch the muscles. Stretching should not cause pain.
2. Perform each exercise twice.

SHAVASANA

1. Lie down comfortably on the back. Keep a distance of 1 to 1.5 ft. between the feet. The feet are kept slanting towards the floor.

2. Arms are kept by the side of the body at an angle of about 15 degrees, palms facing the sky with fingers half bent. Gently close your eyes.

3. All parts of the body from toes to head are consecutively stretched and relaxed according to the yoga teacher's instructions.

4. Do not be disturbed if the mind wanders. It is natural. Keep your eyes gently closed. Do not pay attention to the thoughts. As many times the mind wanders to the thoughts, gently bring it back to the muscles being stretched. Concentrate on the activity you are asked to perform. The thoughts will automatically cease.

5. Once the whole body is relaxed, your total attention is shifted to the breathing process. Make no effort to breath. Observe the natural process of breathing. Make sure that not a single breath goes in or out of the nostrils without your knowledge. While observing the breath, that is Prana, the life-force, experience oneness with it. Thus in shavasana as

the mind becomes quiet, all internal and external muscles of the body are relaxed. The muscles of the coronary arteries are also relaxed. The arteries dilate and the blood becomes thinner. The blood circulation improves. As the heart muscles receive adequate supply of blood, their contraction and relaxation become rhythmic and efficient. Hence every cell of the body receives adequate supply of blood and one experiences a sense of wellbeing and bliss. Remain in this state for 2 to 3 minutes.

6. Take a deep breath. Slowly open your eyes. Make gentle movements of the arms and legs. Turn on a side and gradually sit up.

MEDITATION

Shavasana makes meditation easier. However it is not always necessary to perform shavasana before doing meditation. Meditation can be done any time during the day, preferably when the stomach is not full.

1. Sit with your legs crossed.
2. Bend your hands at the elbows and rest them on the knees with palm facing upwards.
3. Keep your spine and neck erect, however without any strain. Close your eyes gently. Body is relaxed and the mind is at peace following shavasana.
4. Do abdominal breathing for further quietening of the mind. Bring your attention to the navel. Draw the navel in and you will exhale air through the nose and then relax the navel and abdominal muscles; the abdomen will expand and you will inhale. Continue breathing in this manner with concentration on the navel. Let only abdominal muscles

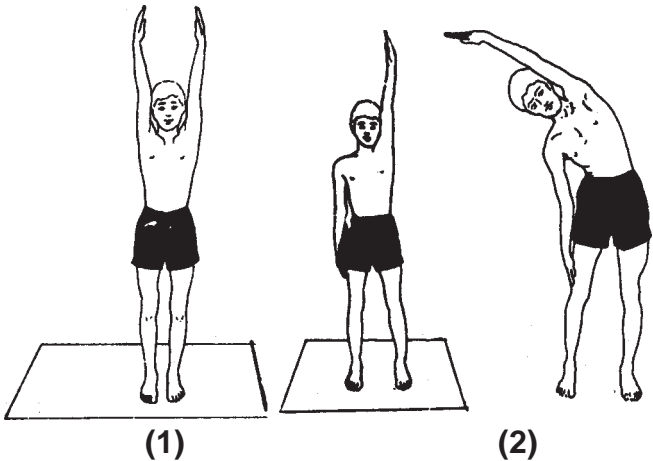
move. Chest should remain still as far as possible.

5. Now shift your attention from the abdomen to the nose. Observe natural breathing process as a witness. Do not make any special effort to breath. Be one with 'prana' (breath). When an individual's consciousness becomes one with the breath, meditation begins. The mind automatically quietens. At this stage, between 7 and 14 cycles per second, alpha waves are recorded from the individual's brain which indicate that the mind is at peace. In order to deepen this mental peace OM is chanted, chanting of M being longer than O. Repeat OMkar five times. Remain tuned to the sound of OM for a couple of minutes. Finally repeat OMkar for the sixth time, gently open the eyes and come out of meditation.

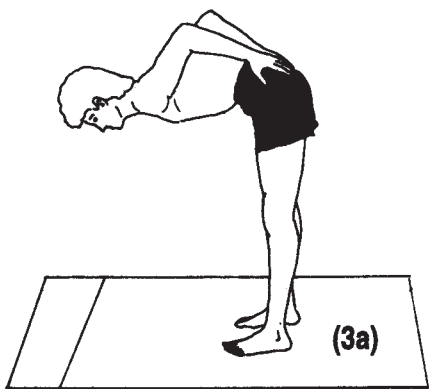
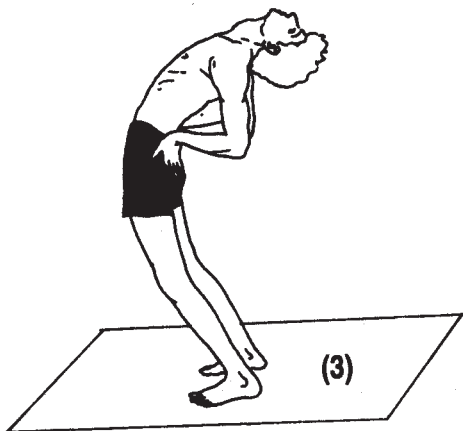
Dr. Kapadia then briefly addresses the group, a group discussion follows. The program ends with the participants joining hands and reciting an all-religion prayer composed by Vinoba Bhave.

STRETCHING AND RELAXATION

1. Stand erect but relaxed. Keep arms by your side and feet less than shoulder width apart. Gently bring forward your hands and raise them above your head stretching them a little. Then relax and let the arms come to normal position by the side of the body.



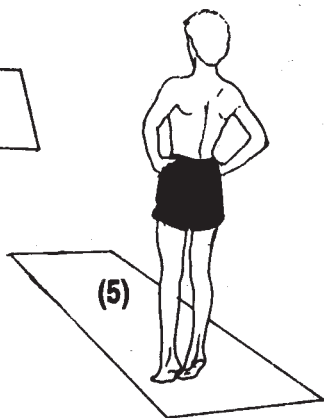
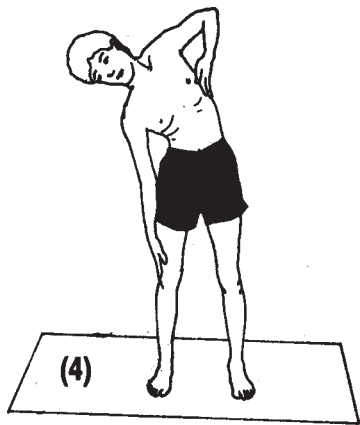
2. Raise your left arm above the head. Bend the upper half of your body on the right side as far as you comfortably can. Then relax and return to the normal position. Repeat the same with the right arm.



3. While standing, support the hips with both hands.

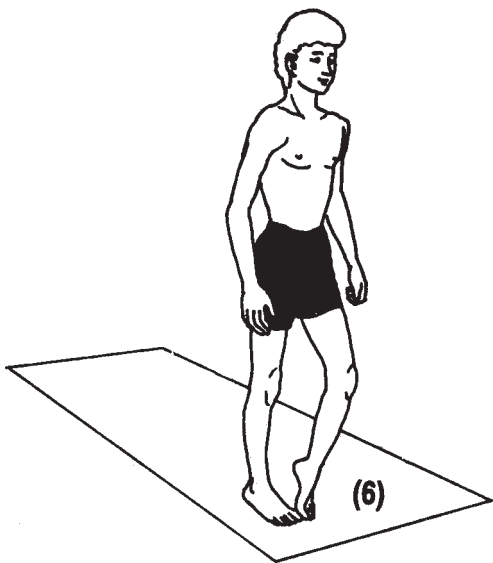
3a. Slowly bend backward from neck to waist. Then relax and bend forward. During bending forward no special effort should be done. After the age of forty bending forward with a jerk or force is not advisable.

4. Pull the left arm upward by the side of the body towards the armpit, while bending to the right and the right arm moving downward by side the of the body. Relax and return to the normal position. Repeat the same with the right arm and the left side of the body.



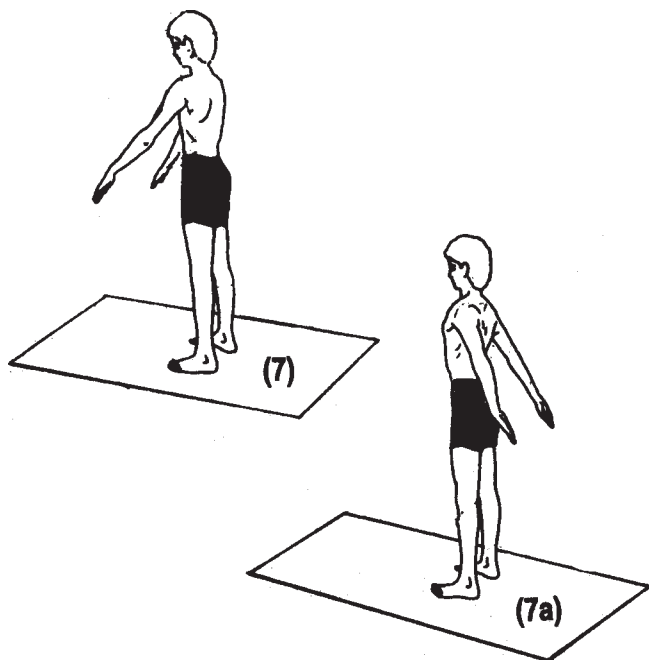
5. Support the waist with hands, raise the body lifting the heels and standing on the toes. Experience the stretching of the muscles of the back of the legs. Relax and return to normal position.

6. Lift the legs alternately bending the knees without lifting the toes. Straighten the leg extending the knee and experience the stretching and relaxation of the muscles of the leg. Continue this exercise for sometime enjoying the - stretching and relaxation. - of the leg muscles. .

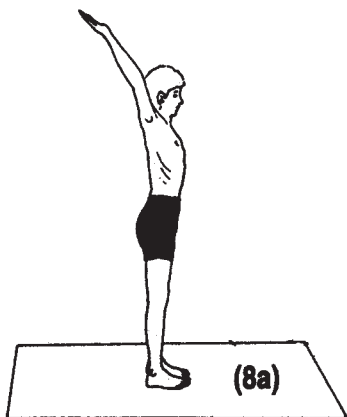
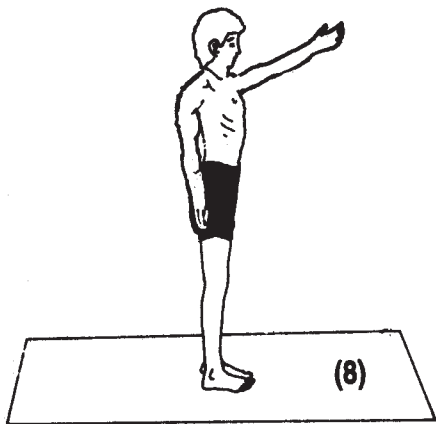


7. Chinese “Swiso” - swining of hands.

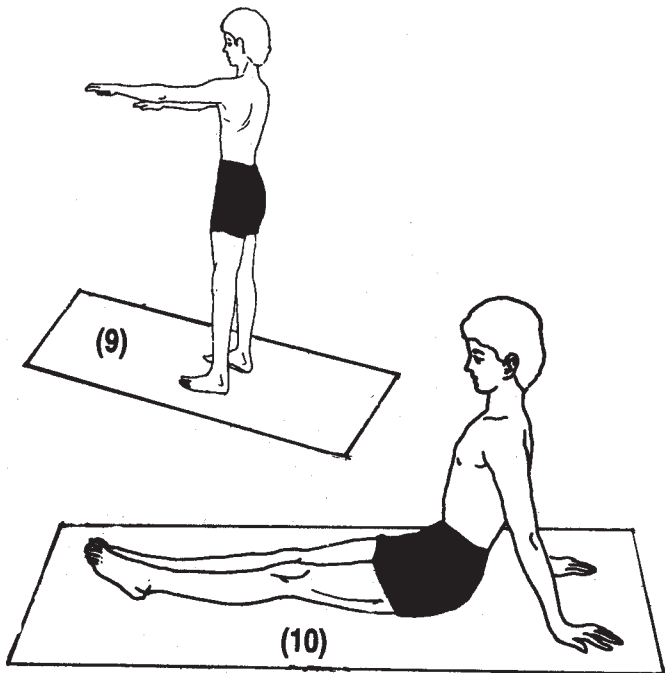
7a. Stand with your feet shoulder width wide apart. Slightly tighten the gluteal muscles and exert pressure on the lower half of the body keeping the upper half relaxed. Now swing the arms backward with a slight push and let them come forward on their own. Stretch the muscles a little while pushing the hands backward-relax and let the hands swing forward automatically. Do this simple exercise as long as you feel comfortable. This helps in lowering the high blood pressure.



8, 8a. Rotate your arms one after the other at the shoulder joint in a relaxed manner - in a clockwise and anticlockwise direction.

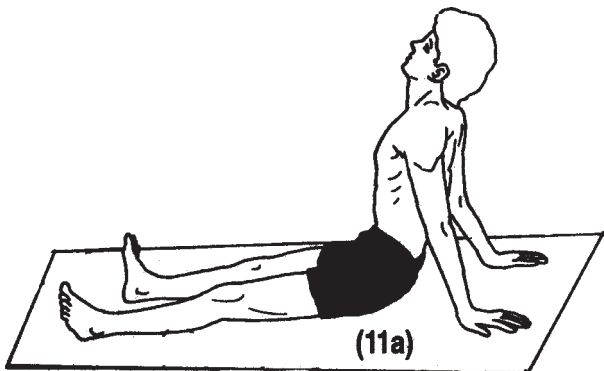
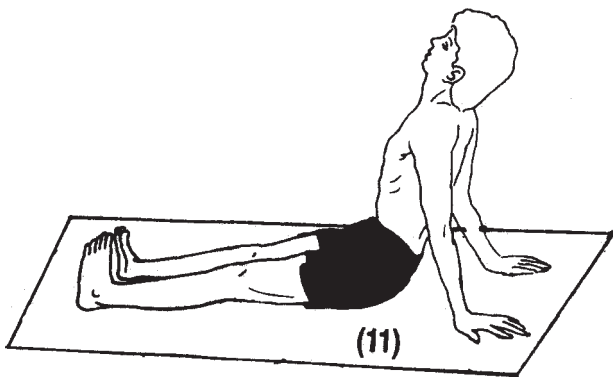


9. Extend both the hands in front of you at the chest level and slowly lower the body taking the weight of body on the toes with the heels off the ground. Then sit down with the legs extended in front and both the palms on the ground, supporting the trunk in a sitting position.

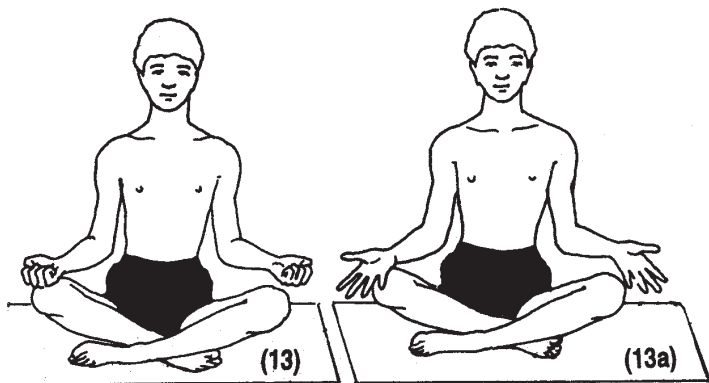
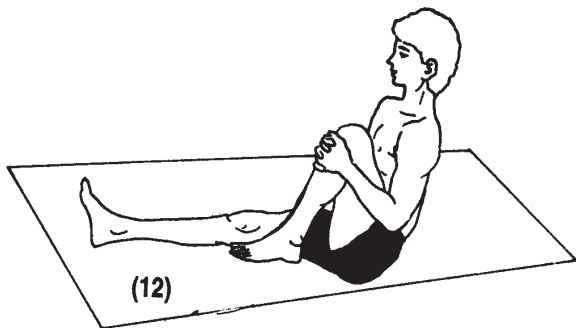


10. While sitting with legs extended in front and arms extended behind the body, stretch both the feet flexing them at the ankles and then relax bringing the toes to normal position.

11, 11a. Rotate the feet at the ankles from outside in and from inside out - in the sitting position.

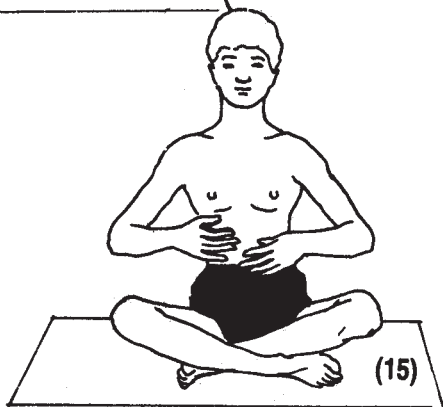


12. Bend the left leg from knee. Hold the knee with both the hands, pressing it to the chest, keeping the sole of the foot raised about two inches off the ground. Then relax. Repeat the same with the right leg.



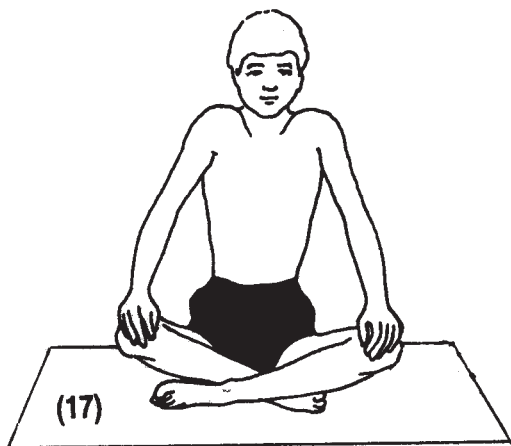
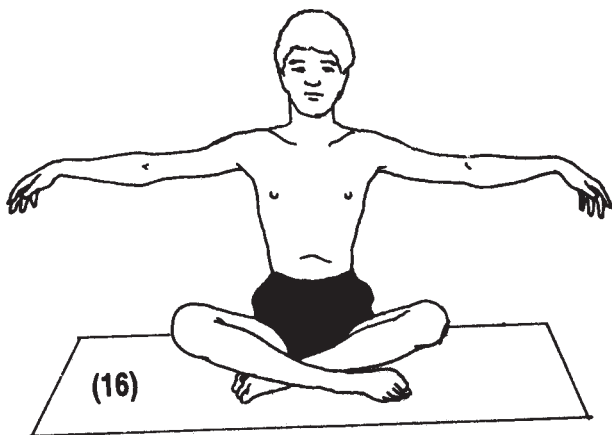
13, 13a. Sit comfortably with crossed legs and arms in front of you. Close the fists with moderate pressure and relax. Open the fists. Repeat this for about five times.

14. Rotate the hands at the wrist joints in clockwise and anticlockwise direction keeping the fists closed.



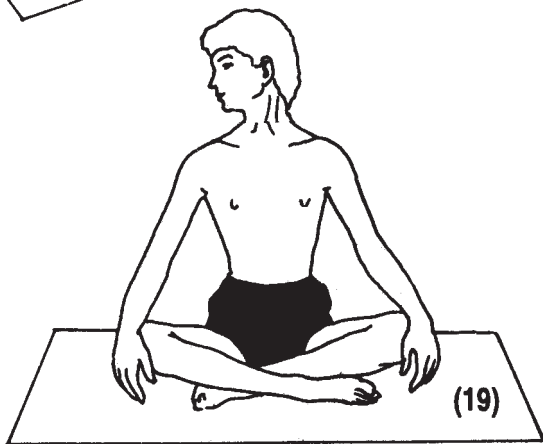
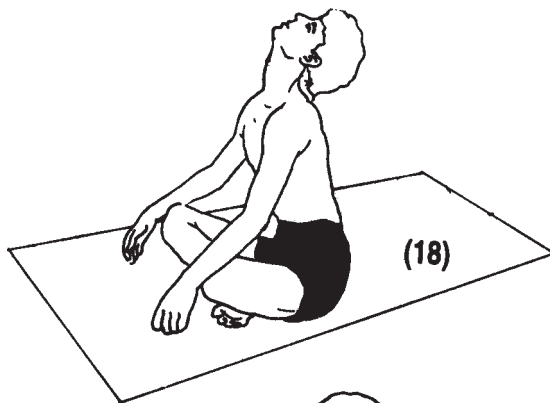
15. Perform the rapid flapping movements at the wrist joints to further relax the muscles of the hands.

16. Rapid flapping movements of outstretched arms.



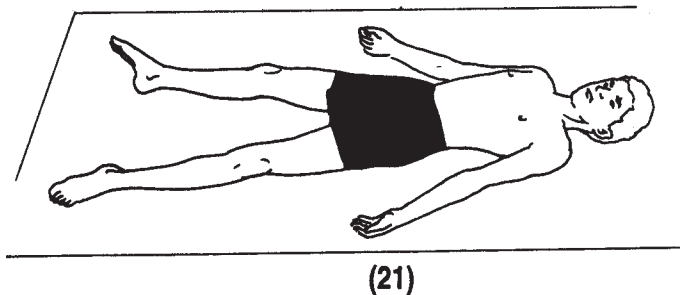
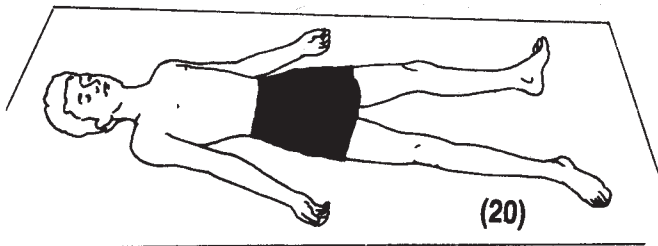
17. Raise the shoulders by the side of the head and relax.

18. Bend the neck backward as far back as comfortable - stretching the muscles a little and then relax bringing the neck forward to its normal position.



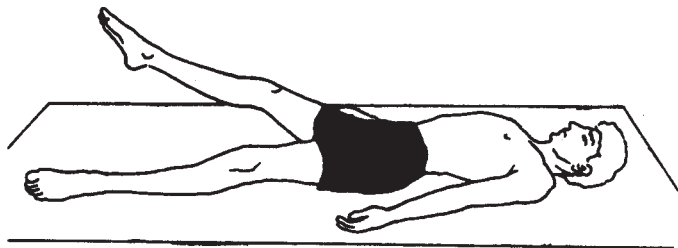
19. Turn the neck to the right as far as comfortable — stretching the muscles a little — and relax bringing the neck to the normal position.

20. Lie on your back. Keep your feet 12" to 18" apart. Let each foot lie on its side in a comfortable position. Keep your arms 6" away from the body with your palms facing the sky and fingers half bent.



21. Bring your awareness to the feet and bend the toes towards the ground and then relax. Now forget the toes.

22. Stretch the muscles of the right leg from toes to hips ,lifting the leg a little off the ground. Feel the stretching of the muscles. Then relax. The leg will automatically fall to the ground. Now forget the right leg and repeat the same with the left leg.



(22)



(23)

23. Contract the muscles of the lower back and pelvic region (around the hip joints). Body will rise slightly off the ground. Relax and the body will come down automatically.

24. Contract the muscles of the chest while inhaling the air and raising the chest a little off the ground. Then relax. Chest will come down automatically.



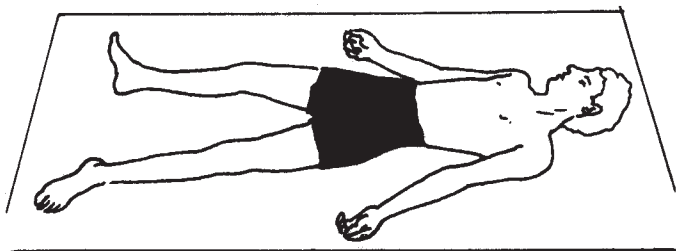
(24)



(25)

25. Close the fist of the left arm. Contract the muscles of the whole arm up to the shoulder lifting the arm a little above the ground. Then relax. The arm will come down automatically to the ground. Repeat the same with right arm.

26. Rotate the neck from side to side gently as if somebody is holding the neck and moving it. Then relax keeping the neck in a comfortable position.



(26)



(27)

27. Open the lower jaw towards the chest and experience the stretching of the muscles of the jaws and the cheeks. Then relax, bringing the jaw back to the normal position.

28. Open the eyes gentle and fully, stretching the muscles of the eyes, brows and the forehead. Then relax these muscles letting the eyes close effortlessly.



(28)

SHAVASANA

The technique of shavasana, as practised in the program of Dr. Dean Ornish, is one evolved by Swami Satchidanandji settled in Virginia, U.S.A. He is a disciple of Swami Shivanand. Shavasana has been practised from the days of yore in different ways. It has been considered the king of asanas. Physical and mental relaxation achieved by shavasana has no peer. In other words, in Shavasana, ideal relaxation is achieved. There is of late a great resurgence of interest in relaxation that is achieved by shavasana. This relaxation is now quantifiable. It is uniformly noted that when an individual achieves this relaxation, slow rhythmic alpha activity is recorded from the frontal lobe of the brain of the participant. Various chemical changes occurring in the body promote healing by increasing the immune status of the individual. The technique of shavasana as shown by Satchidanandji is extremely simple and effective.

He observed that stretching of muscle groups of the body prior to relaxation achieves a very ideal level of relaxation, and stretching has to be optimal. In other words, a delightful experience of stretching a group of muscles is to be felt by the participants by bringing awareness on to the group of muscles being stretched. Indeed, bringing of awareness to the present, that is, to the process of stretching, is of vital importance. As emphasised elsewhere in this book while we are awake most of our awareness is in the past or the future

and the experience has shown that the stress is maximum when the awareness is in the past or the future.

Each group of muscles is stretched and relaxed from foot to head, keeping the awareness on the muscles which are being stretched and relaxed. A detailed step-by-step stretching and relaxation exercise leads to progressive deep relaxation, that is shavasana.

It is one thing to be carried through an endless life, another thing to embrace the whole presence of an endless life together, which is manifestly proper to the divine Mind.

Boethius

DEEP BREATHING

Deep breathing works both to prevent harmful reactions to stress and to help relieve them. If you practise deep breathing for a few minutes each day, you will find that events do not upset you as much as before. Also, whenever you feel upset taking few slow, deep breaths can help break stress cycle and clam you down. Even when you cannot control the situation, you can always control your breathing and thus change your reactions to those circumstances.

Technique

Exhale completely through your nose. Place your right hand on your chest and left hand on your abdomen. Then begin to inhale by filling your abdominal area with air as described earlier. As you do this, your left hand alone should begin to rise and not your right hand. After filling your abdomen with air, keep inhaling filling your lower chest, which should now cause your right hand to rise. Your chest expands as you inhale. Keep inhaling and feel the air rising even higher in your chest. As the air reaches the top of lungs, you will feel your collar bones begin to rise. At this point, be careful not to draw your abdomen inward.

To exhale, repeat the same process in reverse, i.e. from the top to the bottom. Feel your collar bones lowering as you empty the top of your lungs. Continue exhaling as you feel the upper and then the lower parts of the chest

contracting. Finally, allow your abdominal muscles to contract thereby pushing out whatever air remains.

Practise deep breathing for a few minutes every day. Also do it whenever you have some free time or when you are feeling stressed.

The aim and purpose of human life is the unitive knowledge of God.

Aldous Huxley

ABDOMINAL BREATHING

Abdominal breathing is one of the simplest yet most powerful stress management techniques. Your diaphragm is a large muscle which is located between your chest and abdomen. When you breathe in, diaphragm moves down and your abdomen swells up; when you breathe out the diaphragm moves up and abdomen moves in. A new born child breathes with the abdomen. As the child gets older, breathing becomes partially intercostal (i.e. chest breathing). During adult life most of us breathe only through the chest. Abdominal breathing is almost forgotten. So much so that when the person tries to inhale, his chest expands but the abdomen moves in, which is abnormal. It makes the breathing process less effective. Lower lobes of the lungs are perfused with greater amount of blood than the upper and middle lobes. By abdominal breathing lower lobes get properly ventilated. This is the physical advantage of abdominal breathing. But there is more to abdominal breathing than the simple physical advantage. It has been noted that during sleep and relaxed state the breathing automatically becomes abdominal. During anxiety state breathing becomes rapid and is fully inter-costal. When the individual purposely breathes slowly and deeply through the abdomen the effect of stress on the body is reduced. This is borne out by favourable change in the brain wave pattern (alpha) during slow abdominal breathing. To practise abdominal breathing, sit comfortably with your back

straight. Always breathe through the nose which filters warm air. Place your right hand on the chest and left hand on your abdomen. This will help you to be aware of your abdominal muscles as you breathe. As you begin to inhale, your left hand on the abdomen should begin to rise, but your right hand should move very little. Now exhale as much air as you can while contracting your abdominal muscles. Once again your left hand should move in as you exhale but your right hand should move very little. This is abdominal breathing.

Breathing through your abdomen will gradually become automatic if you practise it on regular basis. If you are having a hard time learning abdominal breathing, then lie on the floor in the resting position and gently place a soft weight (small book) on your abdomen. Abdominal breathing will cause the weight to rise and fall with your respirations.

MEDITATION

The technique of meditation is taught in this program in a very unusually simplified manner. Satchidanandji says that we all know to meditate. **The mind can never remain idle and so during all our waking hours our mind is continuously on some thoughts or the other.** When, for example, we have been wronged in some manner or another, our mind is full of thoughts on those events. All we have to learn is to meditate in a healthy way. **In this method, there are no religious or spiritual overtones. One does not have to sit down for long hours to meditate. Even meditation for just five minutes in the morning and in the evening is sufficient to enable us to experience its enormous benefits. Progressive deep relaxation makes the meditation easier. However, it is not necessary to perform shavasana before doing meditation. Meditation can be done any time during the day.**

Again, during meditation a very slow rhythmic alpha activity is recorded from the most active part, the frontal part of the brain. The emergence of alpha response from this part of the brain is the evidence of mental relaxation. But it is more than that. It has been felt that during this period of relaxation the mind of the participant ceases to be the narrow self of the individual, but it expands into a Universal Mind. It is difficult to describe this state of mind. It is essentially a matter of experience. There are other methods of meditation also. In some methods of meditation, the meditator concentrates on a particular vision, say light or a

mantra. All of them are beneficial. But the technique of meditation which involves only bringing one's awareness to one's own breathing has the advantage of easy universal application, in that, we all breathe throughout our existence. Through breathing we get virtually connected with the whole external world. The interesting part is that most of the time we are not aware of our breathing. **In the technique of meditation we simply bring our awareness to our natural breathing.** Again, there is no need to breathe in any particular or special manner during meditation, as that will again disturb the peace of mind. Simply closing the eyes in a relaxed manner, sitting comfortably or lying down in whichever position is suitable, and bringing your awareness on to the natural process of breathing, which is already going on, is the essence of meditation. There is no need to do a special effort to calm the mind or get rid of all the thoughts and empty the mind. Thoughts may come and go but one remains entirely unconcerned. **The total awareness is only on the process of breathing.** Experience has revealed that results that follow this simple procedure are wonderful. When a person relaxes, relaxation envelopes his whole self, body and mind. When he is one with the breath, he experiences the 'eternal present' and feels connected with the whole universe, and healing follows. This healing is not confined to the coronary arteries, but it is total healing. It was gratifying to find that a person who came just to attend our program out of simple curiosity, was tempted to attend regularly and at the end of the sixth session he gave up his 25-year old habit of chewing tobacco. When Dr. Dean Ornish was initiated into meditation by Swami Satchidanandji, he was asked to give up beef for one week

and then return to the meditation class. Dr. Ornish realised that giving up beef made it rather easy for him to meditate. This is a very interesting observation. Change in the diet affects the relaxation of the mind. Further, when Dr. Dean Ornish could meditate better, he felt like giving up all non-vegetarian food in his diet, and that again further improved the quality of meditation. Indeed, it was an extremely happy cycle of events.

Our greatest limitation comes from our perception that we are individuals limited in space and time. Through meditation one experiences that one is eternal and boundless. A feeling of connectedness with the universe and wisdom dawn on the individual. The whole experience helps healing in toto.

To my mind the beneficial effect which is uniformly observed when a person participates in this program is due to the simple fact that normally all throughout our existence our mind is engaged in all the thoughts related to us in all the matters which are of importance to us and all these are confined to space and time. While in meditation, one brings one's awareness in the eternal present, being one with the process of breathing. When this happens, the mind becomes the Universal Mind, spreading all over. Automatically we feel connected with the whole universe, and this feeling of oneness with that element which is not limited in space and time, which is omnipresent and omnipotent, starts the healing process (in the whole individual) of which healing in the coronary heart disease is only a welcome side-effect of the process. To be sure, one does not meditate deliberately to become healthy although it does lead to health, but simply it helps one to enjoy the present moment. Let us understand

the eternal present moment. In modern quantum physics, the idea on linear time has been given up. Time and space are considered as one entity and the division of time into past, present and future is considered to be a mere convenience for our existence in the temporal physical reality. However, in ultimate reality time is thought of as the eternal 'now'. Throughout the day the electrical activity recorded from the frontal brain is more than 15 cycles per second (Beta activity). Only when the mind is completely relaxed — and it happens in meditation — that the alpha activity is registered; that is, the electrical activity with a wave form of less than 15 cycles per second is recorded from the frontal part of the brain even during waking hours. This is an evidence of profound relaxation. Only within three minutes of such relaxation 20% oxygen consumption is reduced as against 8% reduction of oxygen consumption after six hours of sleep. Such is the benefit of meditation. Furthermore, during meditation, an individual is able to visualize the changes he may wish to bring about in his body. For instance, for his coronary arteries, he visualizes all the 'blocks' being gradually dissolved. This is a very important aspect of healing in this program. Meditation prepares an individual for effective visualisation. The visualization without meditation will not be effective. It would be a fantasy — just an idle daydream and no more. But visualization through meditation gets focused and active, whereas fantasy is hazy, unreal and passive.

Many new frontiers have opened up in understanding the medical science as consciousness is being accepted as an important factor in understanding any disease and its treatment. Until now the medical model has functioned on a

Newtonian and Cartesian models of physics with emphasis on reductionism and absolute determinism. Until recently, as early as the beginning of this century, Cartesian model had dominated the world of science. Everything was explained in terms of cause and effect. From the beginning of this century, scientists like Schrodinger and Einstein postulated that with this deterministic, purely objective approach things could be verified and explained to an extent. However, there still remained a vast store of phenomena occurring in the universe which remained a mystery when viewed by mere objectivism. In the Vedas it is stated that the knowledge of all the manifestations of one eternal element is science. Without the knowledge of the eternal element which is at the centre of all the manifestations we would be led to a blind alley. The Ishavasya Upanishad describes the knowledge of manifestations as 'avidya' and the knowledge of eternal element as 'vidya'. It terms science as 'avidya', not conveying the meaning of 'avidya' as anti-vidya. Avidya simply means something other than vidya. The Upanishads do not stop here; they say that the knowledge of vidya without the knowledge of avidya, that is science, is even worse. It leads to complete chaos.

It is very fortunate that the quantum leap of modern physics is now closing the gap between 'avidya' and 'vidya'. In modern physics the knowledge of manifestations of the universe includes the knowledge of that eternal element which pervades throughout the universe. Science describes the eternal element as the Universal Mind of Consciousness.

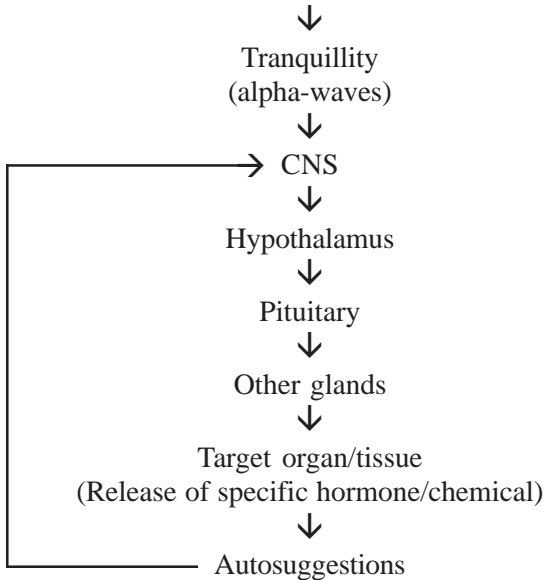
Swami Vivekanand asks the following rhetorical question in his Rajyog and gives its answer:

'What is the use of such knowledge which is guided by meditation?'

During meditation, an individual comes face-to-face, as it were, with something which is never destroyed, something which is by its own nature eternally pure and perfect. He will be then no more miserable, no more unhappy. The individual experiences the eternal presence. Man will find that he never dies and he will have no need to fear it any more. Indeed, when a man realises that he is perfect, he will have no more vain desires.

There will be no more misery, there will be perfect peace even in mundane existence. Just as you would take up any other science exactly in the same manner you should also approach this science for your close study. There is neither misery nor risk in it. It was, therefore, quite gratifying to find that Dr. Dean Ornish, in his program of shavasana and meditation made these remarks of Swami Vivekanand come true.

MEDITATION



Biofeedback through autosuggestions during
meditation

VISUALIZATION

Visualization is creating a picture in your mind. It is easy to do after meditating because meditation helps to focus one's awareness. Visualization is not wishful thinking or fantasy, both of which are unfocused and passive. It is direct and active, it is a therapeutic use of meditation. During meditation the patients of coronary heart disease can visualize the clearing up of blockages in their coronary arteries and the resumption of blood supply to the heart muscles. Visualization is most challenging and perhaps the most powerful of all the techniques in this program of coronary healing. At one time or the other, all of us are apt to be treated unfairly. We often respond by getting angry. When this anger is not resolved in a constructive way, we may internalise it and carry it with us from day to day. Anger is not always inappropriate. Sometimes it is quite healthy to be angry, if you express it constructively and let it go. It is when you hold on to anger, long after it has served its purpose, that it may become destructive. After a while this emotional stress may produce chronic injuries to the walls of arteries. Such a stress can be resolved by forgiving the person during visualization. Forgiveness is a concept which is often misunderstood. It should not be viewed as unselfish. We forgive not to be a good person but simply because it is in our own interest to do so. By forgiving, we feel free of stress, pain and disease. During visualization you may imagine the person you wish to

forgive as a small child or an ignorant adult — who should know better but does not — or you may view him with a feeling of compassion. ‘Is it not sad that he is that way, but I do not have to get affected by him. I can forgive him for what he did, it does not matter any more.’ When you forgive a person, it does not absolve him from the responsibilities for what he has done. It does not excuse him, but simply frees you from being affected in a harmful way. After you feel comfortable with visualization technique, you can go a step further. Keeping your eyes closed, imagine an experience in your life that you regret — something that you did or did not do for which you never have forgiven yourself. (You do not have to tell anyone what it is, just visualize it). When you visualize this way, notice the changes in your breathing, heart rate, muscle tension and so on. Now feel the same compassion for yourself that you felt for the person in previous visualization. Hear yourself saying, ‘I made a mistake and learned from it. I was ignorant, perhaps I should have known better. Past is past. I have suffered enough. I forgive myself for what happened.’ You probably will feel very relaxed. After you have completed this process, continue to observe your breathing for a few minutes. Open your eyes when you are ready. **Again, forgiving yourself does not absolve you from your responsibility.** It will help to relieve you of the pain, stress and guilt that you may impose on yourself. You will be able to see more clearly and accomplish whatever needs to be done in a more constructive way.

GROUP DISCUSSION AND SHARING OF FEELINGS

We have observed that group discussion and the sharing of feelings are also a very useful part of the program. **After shavasana and meditation, the participants have a feeling of connectedness and togetherness which during group discussions and sharing of feelings results in further enhancing the feeling of connectedness.** Mere expression and sharing of the problems, not necessarily finding a solution results in reduction in the stress response of the participants and brings about substantially the benefits of healing.

In fine, the program brings about unknowingly and without conscious efforts, a wholesome change in the behaviour of the participants. All along, our rishis and prophets have been postulating the theory that there is an eternal reality which is pervading throughout all the manifestations of the universe, which is infinite beyond the confines of space and time — omnipresent, omniscient and omnipotent. This observation of the prophets was difficult for the common man to comprehend, since his awareness clings to hard realities of physical existence. Experience has shown that the simple technique of shavasana and meditation taught in this program brings about this glorious objective of the scriptures in a very simple and effective manner available to the common man.

The Spindrift researchers have carried out a wonderful experiment explaining the universality of mind. In one test,

rye seeds were divided into two equal groups. They were placed in a shallow container filled with vermiculate. A string was placed down the middle of the container dividing the seeds into 'A' and 'B'. The seeds of one group were prayed for and the other left out. After the seeds had grown, slender rye shoots were examined. The results consistently indicated that there were significantly more rye shoots in the prayed-for group than in the control group. To test this hypothesis, the Spindrift researchers stressed the rye seeds by adding salt water, keeping the rest of the experiment intact. The results were now even more striking. The ratio of the treated (prayed-for shoots) to the control (not prayed for) ones increased sharply, indicating that the prayer worked even better when the organism was under stress.

In the modern concept ... there is no possibility of a detached, self-contained existence.

Whitehead A.. N.

DIETETIC REGULATION

There are no 'musts' about the diet, except that strong stimulants are best avoided. This comes gradually on its own accord when one practises meditation regularly. There is no need to worry over it. However, with proper diet one derives maximum benefit of meditation from the very beginning. Vegetarian diet free of meat, fish and eggs is most helpful. This does not mean that non-vegetarian food will cause harm to the practitioner. But one may not gain the same benefit that can be had with pure vegetarian diet. Remember, vegetarian food becomes unyogic when it is fried or mixed with spices.

As for beverages, very strong drinks like black tea, coffee are not advisable. It is needless to say anything further about intoxicating liquors. Again, I will stress that if one finds it difficult to change over to vegetarian diet on one's own free will, it does not really matter, because in the long run, with regular practice of meditation, craving for unsuitable food will slowly diminish.

The diet which has been recommended to bring about the reversal of atherosclerosis in coronary heart disease is a strict vegetarian diet consisting of fat up to 10%, cholesterol 5 to 10 mgs, protein 10% to 15% and complex carbohydrates 65% to 75% of the total calories intake. Even milk is considered a non-vegetarian food. 3-4 ounces of yogurt made from fat-free milk is permitted. The white of an egg is allowed. Diet consists mostly of fruits, vegetables and

cereals. Healthy people can modify the diet if their cholesterol is below 200 mg.

Diet recommended by the current American Heart Association is less than 30% of the total fat calories and 300 mgs. of cholesterol. That means, less intake of meat, more chicken and fish and low fat dairy products. However, this diet fails to achieve the ideal of reversal of atherosclerosis in the coronary arteries. The life-style factors have long been implicated in the coronary heart disease; but a specified diet, exercise and stress reduction were being tried on a piecemeal basis. Dr. Dean Ornish put them all together in a single experiment and evaluated the effects on the heart. The idea was that if people could benefit from one major change in their life-style, they could benefit even more by bringing about all the changes that were thought necessary. Surprisingly, changes in the blood cholesterol were not as closely linked to the improvement in the arteries as the conventional medicine would like us to believe.

Robert Yoyall, a participant in the program of Dr. Dean Ornish, revealed a significant change in his atherosclerotic heart disease, even though his cholesterol dropped from 360 to 250 mg., which is fairly above the usually expected norm, thus emphasising the point that cholesterol is important, but it is not the whole story. The first-hand evidence that the life-style changes alone — no drugs, no surgery — can set the heart disease patients on the road to improved health appeared in July 1990 edition of the British Medical Journal ‘The Lancet’ in a study conducted by Dr. Dean Ornish.

Dr. Dean Ornish makes very important points :

1. For reversal of severe atherosclerosis in the coronary arteries, a diet low, almost negligible in fat that is, less than 10% of total calories is recommended.

2. Diet must be strictly vegetarian. Milk is also considered a non-vegetarian component of the diet. Only a small amount of yogurt from fat-free milk is permitted.

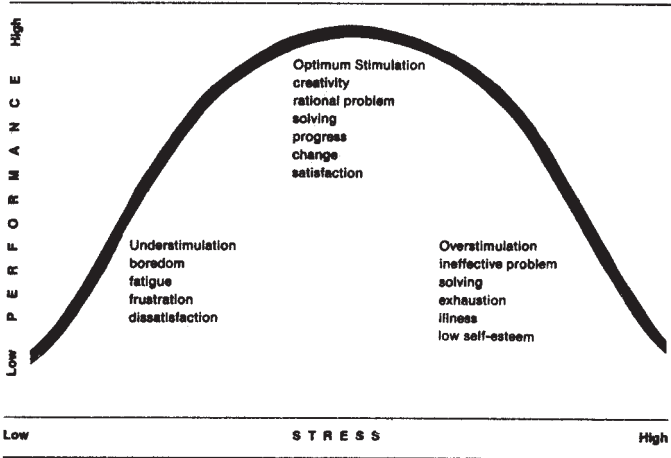
3. Complex carbohydrates, i.e., carbohydrates from green vegetables, fruits, and cereals are to be taken in plenty. Refined carbohydrates, like sugar and jaggery are to be restricted.

Vegetarianism is harmless enough though it is apt to fill a man with wind and self-righteousness

. Sir Robert Hutchinson

STRESS

THE EFFECTS OF STRESS ON PERFORMANCE



Too little stress may be as harmful as too much stress, especially if you want to get a task done. Stress researchers and students of managerial effectiveness have long recognised that some stress or stimulation is needed for optimum performance. Although the relationship between stress and performance varies from person to person, the general pattern can be expressed in the curve shown above. Performance rises as stress increases, and boredom and frustration diminish. Once an optimum point is passed, increase in stress impairs judgment and alertness, and the performance falls off.

YOGA

The word 'Yoga' conjures up the picture of various physical feats like asanas, exercises, pranayam and also spiritual discipline. The practice of yoga is rooted deep in Indian culture. The yoga therapy for various diseases physical fitness has also been with us right from the ancient times. However, the medical science did not accept yoga as a therapy. Of late, medical scientists have begun to take interest in yoga as a very useful tool in bringing about relaxation of the body and the mind and also recommend its application in developing immunity. The resurgence of interest in yoga is due to the accepted benefits of bio-feedback – the therapy which has become an established mode of treatment in various stress-related autoimmune diseases and even cancer.

Basically, the human body and its functions are regulated through nervous system consisting of brain, spinal cord and nerves. The nervous system has two distinct parts : one part is under the voluntary control and most of the ordinary functions of the body like walking, doing work manually, etc. fall under the category of voluntary control. Many vital functions of the body like respiration, circulation, digestion, etc. are involuntary. This system which controls vital functions, is known as autonomous nervous system. It consists of two parts, parasympathetic and sympathetic. One which comes into action in emergency is called a sympathetic system. Activation of this part increases

adrenaline and corticosteroid hormone secretions leading to increase in heart rate, raising of blood pressure and clumping of platelets increasing the viscosity of blood. The oxygen consumption of the body increases and so does lactic acid formation in the body. Wear and tear of the body are also increased; in terms of physics, the rate of entropy increases.

The technique of shavasana and meditation brings about its beneficial effects by quietening the sympathetic nervous system. This aspect of yoga has, therefore, particularly attracted the attention of medical science. Moreover, medical scientists have made this technique of meditation and shavasana simple and easy for a beginner.

Shavasana has been considered the king of asanas. The purpose of this asana, as the name suggests, is to assume a dead-body posture. Various techniques are there to perform this asana. The one adopted in the program of Dr. Dean Ornish has been evolved by Swami Satchidanandji settled in Virginia, USA. It relies on the theme that for optimum relaxation of muscles of the body prior stretching of muscles is necessary. This is wonderful concept. Experience has shown that if relaxation is preceded by stretching, it yields optimum results. A very significant point to remember is that while stretching a particular group of muscles it is not as it were the more the stretching, the better the relaxation. The stretching must be just enough to create a pleasant sensation. The awareness of an individual doing this exercise must be focused on the process of stretching and relaxing. The simple observation that the awareness must be brought on to the part of the body being stretched is the

cardinal feature of the technique without which the benefit of shavasana is not complete.

Science has established that our awareness is, for most of the time either in the past or in the future. Out of 16 hours of our waking time, it is hardly for an hour and a half or so that we live actually in the present. It is well known that stress is minimum when awareness is in the present. In shavasana, by various stretching and relaxation exercises of the body and thereby keeping the awareness on the process, progressive deep relaxation is achieved. After lying in supine position with legs about one foot apart and the arms lying by the sides, palms facing the ceiling, fingers half bent, the individual closes his eyes and brings his awareness on to the body. All the muscles of the body right from the heel to the head are contracted and relaxed one by one. When in this manner, a complete relaxation of the muscles of the body is achieved, the individual brings his awareness to the natural process of breathing. He now becomes a witness to his own breathing process without any special effort to breathe in a particular manner. It is only the natural process of inhalation and exhalation that is witnessed. This brings about relaxation and the peace of mind. It is precisely at this stage, when the individual's awareness gets focused on the natural process of breathing, that the suggestions are given that all the muscles of the body are now relaxed, and hence the coronary arteries which are made up of muscles are also relaxed. This leads to dilatation of the arteries and increase of blood flow to the heart muscles. It improves the functioning of the heart which in turn increases the perfusion of all the cells of the body with the result that the individual feels very energetic and well. After five to ten

minutes of shavasana, the participants sit down in a comfortable posture with their eyes closed and their awareness focused on the process of breathing. This is all there is to the technique of meditation. When the participants are one with their breath, they say 'Om' five times, keeping their awareness on the sound 'Om' and thus having experienced oneness with that sound, sit quietly with their awareness on the breath for further five minutes. To be thus in tune with the breath is to be in tune with the life force also.

Nothing is more fatal to health than overcare of it.
Benjamin Franklin

BIOMEDICAL MODEL

Throughout the history of Western science, the development of biology has gone hand-in-hand with that of medicine. The mechanistic view of life firmly established in biology since the first scientific revolution of the 17th century has dominated the attitude of physicians towards health and illness. The human body is regarded as a machine that can be analysed in terms of its parts. The diseases are seen as malfunctioning of biological mechanisms and studied from the point of view of cellular and molecular biology. Three centuries after Descartes, the science of medicine is still based on the notion of the body as a machine, of disease as a consequence of break-down of the machine and the doctor's task as the repairer of the machine. The new concepts in modern physics have brought about a profound change in our world view, 'From the mechanistic concept of Descartes and Newton to a holistic and ecological view, a view similar to the views of mystics of all ages and traditions.

To reincorporate the notion of healing in the theory and practice of medicine, medical science will have to transcend its narrow view of health and illness. This does not mean that it will have to be less scientific. On the contrary, by broadening this conceptual basis it will become more consistent with recent developments in modern science. To begin with, the definition of health given by W.H.O. in the preamble of its charter may be useful; 'Health is a state of

complete physical, mental and social well-being; and not merely the absence of disease or infirmity.’

Detailed knowledge of biological functions on the cellular and molecular levels not only led to the extensive development of drug therapy but was of tremendous help for surgery, allowing surgeons to advance their art to the levels of sophistication beyond all previous expectations. This development of medical technology became all pervasive in the modern medical care. The increasing dependence on medicine of Hi-technology has raised a number of problems which are not only of medical or technical nature, but involve much broader social, economic and moral issues. The President of Rockefeller Foundation writes, ‘We have developed the finest bio-medical effort in the world and our medical technology is second to none.’ Lees Thomas, President of the Memorial Sloan Catering Cancer Centre observes, ‘We are left with approximately the same roster of common major diseases which confronted the country in 1950 and although we have accumulated a formidable body of information about some of them in the intervening time, the accumulated knowledge is not yet sufficient to permit either the prevention or the outright cure of them.’ The Dean of the Graduate School of Public Policy, U.C. Berkley states, ‘The best estimates are that the medical system (doctors, drugs and hospitals) affects only about 10% of the usual indices for measuring health.’

Although the knowledge of cellular and molecular structure will continue to be important, fuller understanding of life will be achieved only by developing a ‘systems biology’, the biology that sees an organism as a living system rather than a machine. Prior to 1492, one would

easily count oneself learned if one believed the earth to be flat, but when it became possible to travel great distances, as did Columbus and Magellan, the data changed and consequently the model of earth's configuration had to be revised. In Medicine today, with the discovery of modern physics, we have taken Magellanic voyages. New holistic way of thinking is the need of the hour. Resistance to change is unbecoming of the true scientist, for the history of science is a record of change. Our medical model until now dealt with limited information and was limited as a result. Now the new information is that consciousness matters. The evidence supporting the importance of consciousness has emerged from the most unlikely place – modern bioscience, which has traditionally championed strictly a mechanistic view of man. One of the main lessons that the physicists have had to learn in this century has been the fact that all the concepts and theories we use to describe nature are limited. As Werner Heisenberg observes : 'Every word or concept, however clear it may seem to be, has only a limited range of applicability. Scientific theories will always be the approximation to the true nature of things. Scientists will not need to be reluctant to adopt a holistic framework for fear of being unscientific. Modern physics can show them that such a framework is not only scientific but is in agreement with the most advanced scientific theories of physical reality.'

...science has been affected by a point of view which tries to be value-free. This is of course mere prejudice.

David Bohm

BIOFEEDBACK

Stress reduction and healing has received dramatic support from a new technology known as Biofeedback. It is a technology that helps a person to achieve voluntary control over normally unconscious bodily functions like heart rate, body temperature, muscle tension, blood pressure, brain wave activity and others. Many clinicians now believe that it will be possible to achieve some degree of voluntary control over any biological process. Numerous applications of this technique over the past 12-15 years have shown its usefulness in wide variety of stress-related diseases and even cancer. Biofeedback department has become an integral part of most medical institutions in U.S.A.

Brain wave rhythms have been grouped into four major categories : Alpha, Beta, Theta and Delta.

Alpha was the first brain wave frequently discovered and it is alpha which is presently causing a lot of stir. About fourteen cycles per second and higher are known as beta waves; about seven to fourteen cycles per second are called alpha, four to seven theta and finally four and below are called delta. It is now recognized that increased alpha production accompanies the practice of meditation. When a person is in alpha state, renewing and self-healing processes are accelerated. During alpha state, a person becomes more receptive to suggestions. This susceptibility to suggestions during alpha state has some startling implications. When the

person is in Alpha state, all his self healing ability and the ability to heal others is enhanced. Spiritual healers from all over the world, while they are engaged in healing, produce large quantity of alpha waves at ten cycles per second. More significant was the discovery that the patients unconsciously changed their brain wave pattern. So it conformed to the brain wave patterns of the healer who worked on them. People who function regularly at ten cycles per second have stronger immune system and heal more quickly. By combining affirmations and visualization while at alpha level people can heal themselves and can also project healing thoughts and energy to others.

In biofeedback therapy a person is seated in a comfortable position and the electrodes are placed on the front part of his brain and EEG is recorded. Normally beta activity is recorded from the frontal brain and in persons who are in great mental stress and confusion, bizarre beta activity (an irregular, rapid, more than twenty cycles per second rhythm) is recorded. It has been observed that during bizarre beta activity secretions of neuropeptides and endorphins required for maintaining immune status of the individual are reduced. The therapist then trains the person to achieve relaxation of his mind by visualization of happy events of his life. When the person is able to co-operate, bizarre beta activity is converted to regular beta activity and with further relaxation alpha state achieved. When the EEG pattern changes from bizarre to regular beta, a still different signal is given to the patient, and when the alpha state is achieved, a different signal is given, helping the patient to realise that the desired relaxation is being achieved. This is the principle of feedback. As it is used in altering the

biological functions it is known as biofeedback. The simple technique of meditation taught in our program brings about alpha activity in the participant very easily and effectively.

A human being is part of the whole, called by us “universe”, a part limited in time and space. He experiences his thoughts and feelings as something separate from the rest — a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal decisions and to affection for a few persons nearest us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.

Einstein

SPACE, TIME AND DEATH

Newtonian classical physics has dominated our thinking for the last three centuries. Time has been viewed as a linear time and death as the final end of life. Modern scientific concepts, evolved since the beginning of this century when in 1905 Einstein published his treatise on special relativity changed for ever our concept of space and time, and with it also the concept of death. The notion that time flows in one way fashion is a property of our consciousness. It is a subjective phenomenon and is a property that cannot be simply demonstrated in the natural world. This is an incontrovertible lesson of modern science. A flowing time belongs to our mind and not to nature. *'It is we, who pass away, not time.' We serially perceive events that simply 'Are'. The serial perception of many such events we interpret to be flow of time. The physicist mathematician P.C.W. Devisé states, 'No physical experiment has ever been performed that detects the passage of time.' In relativistic physics we can never talk about space without talking about time and vice versa. When his very dear friend Michelle Besso died in 1955, Einstein wrote to Besso's surviving son and sister explaining the concept of time and death: 'The foundation of our friendship was laid in our student years in Zurich, where we met regularly at musical evenings...later the patent office brought us together. The conversation during our mutual way home were of unforgettable charm. ... And now he has preceded me briefly

in bidding farewell to this strange world. This signifies nothing. For us believing physicists the distinction between past, present, and future is only an illusion, even if a stubborn one.’

“Kalo Na Yato Vayamev Yatah”

Time is what keeps the light from reaching us. There is no greater obstacle to God than time. And not only time but temporalities, not only temporal things but temporal affections; not only temporal affections but the very taint and smell of time.

Eckhart

AN OPPORTUNITY TO THINK

It was a fine winter morning, November end 1988, my younger brother, 53, an advocate was convalescing after a by-pass surgery in a cosy room at St. Louis Hospital, Houston, Texas, USA. This was the 4th day of his surgery. He was sitting up quite relaxed and happy. Dr. George J. Reul, an eminent surgeon of Texas Heart Institute entered the room and inquired of my brother as to how he was feeling that day. My brother answered, 'I am feeling fine.' Dr. Reul responded saying, 'Yes, you are bound to be fine as we have started circulation to your heart.' He paused a little and added, 'This is not a cure of the problem, far from it. We have given you an opportunity to think. So, think...'. My brother who was in the US for the first time could not understand Dr. Reul. So he asked, 'You said, "think"? Think what?' Dr. Reul said, 'Yes, think, we all like to be successful. We like to work hard. It is nice to achieve success, but there are other things in life ... and I think your elder brother here, who is a cardiologist, would explain it to you so that you don't have to come back to me.' There was silence. My brother was left in a thoughtful mood. He enquired again of Dr. Reul, 'When will you see me again?' Dr. Reul smiled and said, 'I do not have to see you again, your brother will explain. I am going out of the country tomorrow and you may take discharge from the hospital as soon as you wish.' Dr. Reul said so eloquently all that needs to be said about by-pass surgery for the treatment of coronary heart disease.

FEEDBACK FROM PATIENTS

1. Mr. U. K. Sheth - 60, a retired executive of Ahmedabad Electricity Co., had a mild attack of myocardial infarction in December 1991. He had history of hypertension 170/110, mild diabetes, weight 82 kgs. and occasional smoking. His father had hypertension and coronary heart disease.

After joining the program on 2nd June, 1992 he was further motivated to reduce his weight, which is now 62 kgs. With the reduction in weight he has no diabetes now. The blood pressure also remains normal. According to him he is mentally much more relaxed than before. Previously he used to have disturbed nights. Now he has sound sleep. He can walk briskly without any fatigue. He feels very delighted when his friends comment about lively glow on his face.

2. Mr. Jitendra Panalal Bhow - 59, a chartered engineer, had an episode of acute coronary insufficiency in April 1980. After recovery he was advised to go for further investigations. In July 1980 his angiogram taken at Huston, U.S.A. revealed 80% blockage of left main artery. Surgery was deferred and he was advised to continue medical treatment. He joined the program in October 1991. He says that he feels better and is able to walk without discomfort. His blood pressure remains normal and he gets good sleep. He says, "Whenever I feel uneasy, I immediately practise meditation for a few minutes and I feel very well." He has

gained confidence and has changed his outlook on life. He feels quite energetic and relaxed.

3. Mr. Subodh M. Shah - 60, a businessman had myocardial infarction in 1987. Following that he used to have angina on effort grade II to III. His stress test done on 24-5-89 was positive. He was advised for further investigations, for which he did not go and continued medical treatment. He was seen by Dr. Kapadia in February 1992 and was advised to go for coronary angiography. He did not go in for such a test and joined the program in February 1992.

In the very first month, he noted considerable improvement in his temperament. In his words, "I was a highly strung individual and could not get sleep till early morning even after taking a sedative. I started getting natural sleep without any drug." Formerly he was addicted to twenty-five cups of tea a day. Now he can do without it. He has practically no angina now on exertion, can walk 4 to 5 kilometers without pain. In his business he can do as much work as he was doing 10 years ago. He has improved on all fronts. Previously he could not sit continuously for three hours because of the pain in back. Now he can sit without pain. He regularly practises shavasan and meditation at home.

4. Mr. A. R. Shaikh - 62, a businessman had unstable angina in 1987 and in November 1988. Treadmill test done in October 1990 was strongly positive. Coronary angiography done at Jaslok Hospital on 27th November 1990 revealed 80% block in LAD, 75% in OMI, 100% in

RAC and LVEF was 45%. He was advised CABG. He continued medical treatment with naturopathy and yoga therapy elsewhere on advice of a well wisher. However his symptoms did not improve and he decided to go in for CABG. Coronary angiography was done again on 14th February 1991 which showed considerably advanced diffuse disease of coronary arteries. CABG was deferred because of diffuse disease and he was advised to continue vigorous medical management.

He joined the program on 26-11-91. He can now walk for an hour and is able to drive a scooter and even a bicycle for 4 kms without discomfort. Dosages of drugs have been reduced. Moreover, there is improvement in hyperacidity which was due to anti-inflammatory drugs he took for arthritis. There is marked improvement in osteoarthritic pain and is able to perform Namaj twice a day. He can also sit cross-legged on the floor. He gets sound sleep. He has stopped smoking and has become a vegetarian.

5. Mr. Ranchhodbhai M. Patel - 60, had heart attack in 1985. After the attack he continued to have breathlessness on even moderate exertion in spite of the drugs. He joined the program in November 1991. His serum cholesterol level dropped from 295 mg. to 242 mg and that of serum triglycerides from 170 mg to 146 mg within two months. He can walk 4 kms daily without any symptoms. He drives his car. His weight is reduced to an ideal level. Medication is also reduced. He does not crave for tea any more. In his words, "There is improvement in my temperament. I have become more flexible. Previously I was very rigid in my views. Unpleasant events do not harass me as before."

6. Mr. Ishwarbhai Mahipatbhai Patel - 63, a retired principal of a college has hypertension and diabetes since 1988. B.P. Was 200/100 and blood sugar level PPBS 235 mg. He also had osteoarthritis. After joining the program on 16-12-91, he feels that meditation has helped to change his life-style specially regarding his food habits. His weight has reduced by 6 kg. Dosage of drug for hypertension has been reduced. His B.P. Is normal 140/80, blood sugar level has fallen to 195 PPBS and there are no arthritic pains.

Three months ago he could venture to join a pilgrim party going to Dakor on foot 75 kms from Ahmedabad. He says, "My confidence has increased and if the doctor permits I want to go on pilgrimage on foot to Ambaji, 200 km from here. I have a feeling of happiness and joy."

7. Mr. Jayendra Rathod - 46, an assistant commandant in Central Industrial Security Force (CISF), a patient of severe coronary heart disease was admitted for acute left ventricular failure in April, 1992. He attended the program for only about 8 to 10 sessions. He came for a follow-up examination on 3rd Sept. '92. When asked about his health, he said that the program of relaxation helped him a great deal in facing the most irregular stressful weeks he had to spend during the last four months. At times he had only four hours of sleep. During all these days he did not have to take a single tablet of sorbitrate or a sleeping pill. Whenever he felt stressed he did the stretching and relaxation exercises followed by meditation. This gave him an instant feeling of well being. This relaxation technique compensated for lack of sleep and his senior colleagues were surprised to find him energetic in spite of the very hectic strenuous schedule.

8. Mr. Rameshchandra Jivraj Nagadia - 55, an accountant had heart attack on 4th July, '90. After joining the program on 3-3-92 the frequency of anginal attacks has been considerably reduced. He feels better and is able to work long hours.

9. Mr. Vishnubhai N. Soni - 59, a civil engineer, had angina in 1984, diabetes -(blood sugar PPBS 250 mg%) and acidity.

He joined the program in October 1991. After attending a few sessions he practises shavasana and meditation at home. He says that he has derived lots of benefits due to regular practice of meditation. He has no more anginal pain. He feels that had he not practised meditation, he would have required to go in for bypass surgery. He gets sound sleep without sleeping pills. His anxiety is reduced. He has no acidity now and feels energetic. Diabetes is normal. He can cope with daily stresses of life easily and feels very peaceful.

10. Mr. Bhaskar Chhaya - 55, while testing a new sphygmomanometer for the sake of fun in 1987, he was surprised to find his B.P. 170/120. This led to further investigations which revealed left bundle branch block (LBB) in his cardiogram. He had heart attack on 17-3-90. He has family history of coronary heart disease.

He joined the program on 10th Oct. '91 and attends regularly. He has improved in many respects. He can now climb the steps without discomfort. He works more than before. His tension has reduced. He feels quite energetic and alert. His B.P. is well under control 140/85, PPBS is 108

mg% and Cholesterol 160 mg%. He says, "Program has inspired me to change my lifestyle. I am now fully aware about prevention of future heart attack."

11. Mr. Gunvantrai C. Joshi - 62, a Consulting Engineer had an angioplasty done in October 1991. In spite of this he used to get considerable discomfort in chest while walking and at times even at rest.

He joined our program in April 1992. His condition has improved. He has become so confident that with further experience of this program he feels, he will be able to avoid surgical treatment of the blocks in his coronary arteries.

12. Mr. Shashikant Kishorbhai Prajapati - 52, Consulting Civil Engineer, had the first heart attack on 21.11.90. Thereafter he was advised angiography studies because of the unstable angina. On 4th Feb. '91 he was required to rush to Madras with pulse rate of 35 p.m. On 12th Feb. '92 his angiogram revealed three blocked arteries. Bypass surgery was done on 15th Feb. '92. He has the history of diabetes and hypertension. Even after bypass surgery, he remained diffident about his future. He got the benefit of the program. He says, "Heart to heart talk with Dr. Rameshbhai has changed my way of thinking. My fear complex is removed and I have gained self-confidence. I have regained joy of life." He has no trouble or complaint and feels well. He can also drive a scooter with ease. His blood pressure has come down from 180/120 to 150/90.

13. Dr. Right C. Vakil - 41, a Pathologist, has a strong family history of coronary heart disease and

hyperlipodemia. His cholesterol and triglycerides levels remained at high levels for 20 years. He tried exercise and fat restricted diet for two years which resulted in negligible difference in lipid levels. Thereafter lipid lowering drugs were added. This brought down cholesterol level to some extent but triglycerides remained unchanged. Cholesterol went up again on discontinuation of the drugs. After joining the program on 2nd January '92, the lipid levels came down in six months which could not be achieved during 20 years. Serum Cholesterol which remained above 400 mg. per 100 ml. Is now 260 mg./ 100 ml. And Serum Triglycerides which also remained above 400 mg./ per 100 ml. has now touched 190, without drugs. He feels more energetic now. He says that he has learn to accept the facts of life, which has brought relaxation to him. He does not hurry or worry. His fear of sudden death is removed.

14. Bhogilal Darji— 43, had anterior wall infarction on 26th July, 1988. He took prolonged bed rest for unstable angina in 1990. He continued to have angina and breathlessness grade III despite vigorous medical management. Financial constraints prevented him from going for further investigations. After four months of joining the program, he became totally asymptomatic. He walks briskly for 45 minutes and does his tailoring job for six hours a day. The dosage of drugs has been much reduced. His treadmill test done recently is negative. In his own words, "I am at peace with myself. I enjoy my life. I am quite productive in my work as a tailor."

15. Mr. Shirish Mehta-. 61, underwent coronary bypass surgery for severe triple vessel disease in 1989. After four months of surgery, he experienced angina and treadmill test was strongly positive in January, 1990. He continued to have angina off and on. This made him very much depressed. He lost all interest in life. After being on the program for about six months, he joyfully says, "The program has been a boon to our family life. I have started attending meetings and seminars, resuming my duties as Chairman, which I was avoiding for last one year. I walk 5 km easily. I am on minimum maintenance drug therapy. My serum cholesterol has dropped to 189% from 238 mg%. Fear of death has totally disappeared. I am ready to take a treadmill test now."

16. Mr. Bhupendra Desai-. 53, with severe diabetes, had anterior wall infarction in 1989. Treadmill test done on 16th February, 1991 was strongly positive. He did not afford to go for further investigations. After being five months on the program his effort tolerance has improved a great deal and dosage of drugs also came down significantly. The remarkable feature in this case, is that his diabetic control is quite satisfactory on one 'glynase' tablet twice a day. Earlier even with 100 units of insulin his diabetes was poorly controlled.

17. Mr. Gopalbhai C. Patel - 54, a professor, has history of hypertension; he got an anginal attack on 16.4.92. After ECG and treadmill test he was advised for angiography which he has postponed. After joining the program on 25-4-92 he has improved in his clinical condition. His resting

ECG is normal. His weight is reduced from 86 kgs to 68 kgs. He can walk for forty minutes without any chest discomfort. His blood pressure has returned to normal and the drugs are reduced. He adds that his reactions to painful events have become mild. He feels relaxed. He is confident that when he goes for treadmill test again on advice of his doctor, the test will be normal.

18. Mr. Jyotindra N. Patel - 40, a young businessman, has the history of heart attack on 30th Oct. '88. He recovered well from the episode. After recovery his treadmill test was normal and was advised to continue medical treatment. He developed chest pain again on 27th Nov. '90 for a week and was advised coronary angiography. It revealed considerable blocks in the arteries. He was advised bypass surgery. In the meantime, however Mr. Patel became symptom-free and his treadmill test was again normal. There was a difference of opinion regarding his further management. A cardiologist in USA gave an opinion for coronary bypass surgery whereas a cardiologist in UK recommended to continue medical treatment and consider surgical procedure only on recurrence of chest pain. He joined the program on 2.10.91. Since then he is symptom-free. He looks wonderfully well and energetic. He attends his business as a normal person. His confidence has increased which is evident from all his activities of life. Like many of our participants he also asserts that the stressful situations no longer upset him as before.

19. Mr. K. J. Trivedi— 62, Adviser to Gujarat Ambuja Cements Ltd. first came to me for consultation on 23rd

September 1986. He has the history of heart attack on 22nd January 1986. His first ECG taken on 3-2-86 showed evidence of anterior wall infarction. He recovered well from the heart attack. A stress test was performed on 13th June 1986 which was positive, indicative of considerable coronary artery disease, and he was advised coronary angiography studies. Coronary angiography performed on 14th August 1986 showed significant block in LAD, circumflex and RCA arteries of the heart. LAD showed 100%, Circumflex 99% and RCA 70% block. He was advised coronary by-pass surgery. He sought my advice for an alternative approach. He had also suffered from duodenal ulcer about 15 years ago. When he consulted me, he had complaint of chest discomfort on moderate exertion classed as 2 B in medical terms. With adjustment of therapeutic regime, meditation, diet and graded exercise program, Mr. Trivedi fully recovered from his complaint and now he is able to walk 4 to 5 kms. daily without discomfort. Echocardiogram done on 6th July 1988 revealed normal left ventricular function with ejection fraction 57% and there was no evidence of wall motion abnormalities. Now he feels fully rehabilitated. Barium meal showed healed ulcer on 19-8-88.

We are narrating this case for the wonderful beneficial effect of the program experienced by him and also to underline the pitfall of over-confidence in one's recovery from a physical illness. We have emphasised time and again that this program is no substitute for competent medical advice and specific drug treatment of an illness.

Mr. Trivedi also had history of peptic ulcer of more than fifteen years duration. Due to over-confidence he stopped

treatment of ulcer and he developed malena, which dropped his haemoglobin to 5 gr% and he had to take two blood transfusions. He has recovered after starting proper treatment for peptic ulcer. During this setback in his health, he remained very confident about his recovery and was quick to learn a lesson from this experience.

20. Mr. Vimal D. Shah - 55, an officer in Ahmedabad Municipality has severe anginal pain in August 1990. After treadmill test he was advised to go for coronary angiography studies. He has the history of diabetes since 1987 and blood sugar level ranged between 220 - 300 mg.

As Mr. Vimal D. Shah was reluctant to go in for angiography test, Dr. Kapadia advised him to join the program. After joining on 25-4-92 his diabetes is under control with even reduced dose of drugs. He is now able to perform normal duties in his service without fatigue. He feels as if he is like other healthy people. In his words, "I am now fully confident that I will not need to go in for bypass surgery for my coronary disease."

21. Mrs. Chandrika C. Gosalia - 50, a housewife. Hypothyroidism was detected five years ago. She was feeling well with proloid. She had an occasion to consult me on 2nd July '92 for pain in chest. After joining the program within a short span of two months, there has been marked improvement in angina. Dosage of drug is reduced. She feels well. She gets good sleep without a sleeping pill. Her husband Mr. Gosalia, who has been practising shavasana for the last ten years, says that after joining the program with his wife, he feels much more relaxed after doing

shavasana in the group. The relaxation and the peace of mind felt in group was never experienced by him before.

22. Dr. Jitendra K. Shah – 54, a family physician for 25 years. One year ago he had a very tragic incident in his family. Because of that incident he had tension and he was getting pain in chest and many a times pain increased on exertion. He was investigated. His ECG was normal. All other investigations were normal. He was advised further investigations of treadmill and other tests.

Meanwhile he met me and I advised him to attend the program. His wife Mrs. Pina had a similar problem of tension. She had insomnia-lack of interest, irritability and was all the while depressed. She also attended the program and felt tremendous improvement. She has gained confidence and started taking interest in all family activities. She has also come out of depression. Dr. Jitendra Shah experienced great improvement in his behaviour and got the peace of mind. He recommended his ten patients of coronary artery disease to attend the program. They all are benefitted and they have developed great confidence.

THE AUTHOR'S INTERVIEW WITH ALL INDIA RADIO

(By Prof. Ramesh Dave)

Q.1 Dr. Kapadia, you've had the highest education in the field of cardiology in England and America. After such a distinguished career and experience, what really led you to Yoga?

Medical science has made great progress in the treatment of coronary heart disease. Angioplasty and by-pass surgery are widely used in its management. But neither of them promises a cure. They are palliative measures. Bypass surgery by passes the problem, as the trouble often recurs.

Over years, I've been looking for an answer. Meanwhile, I came to know of Dr. Dean Ornish's success in the treatment of coronary heart disease through Yoga. In June '91, I got an opportunity to observe his program. It was really amazing to see how in a city like San Fransisco, steeped in materialism and luxury, Dr. Ornish's patients experienced such great relief through Yoga.

Q.2 Could you please tell us about this program at San Fransisco?

Dr. Dean Ornish's program consists of almost fatfree strict vegetarian diet, modest exercise, progressive deep relaxation (shavasana), meditation, group discussion and the

sharing of feelings. 40 patients with severe coronary heart disease showed remarkable improvement during 4 years. This was verified by positron emission tomography - PET Scan. This is a technique for assessing coronary blood flow to the heart muscle without coronary angiography.

Q.3 Is this Yoga western, or different from what we have here?

Yoga has its roots in Indian culture. You will be glad to know that Dr. Ornish's program was inspired and evolved by Swami Satchidanandji settled in Virginia who is a disciple of Swami Shivanand.

Q.4 Is it an alternative therapy?

It is supportive or supplementary therapy, a nature cure along with medical treatment. It does not replace the traditional therapy.

Q.5 Will you please explain the method of Yoga?

The purpose of Yoga is to bring about the relaxation of the body and the mind. It is easier to relax the body than the mind. Moderate stretching exercises followed by relaxation makes the relaxation process easier. Once the body relaxes, the mind automatically begins to relax. The Mind is present in every cell of the body. Hippocrates, the father of medicine, said that there is a measure of conscious thought throughout the body. Progressive deep relaxation i.e., shavasana achieved in this manner brings about a relaxed

state of the mind and the body, which prepares the individual for meditation.

Q.6 Doctor, you seem to be turning towards religion.

Certainly not. Meditation is not a religious ritual. It simply consists in bringing your awareness in the present by focusing on the process of breathing or some sound, like Om.

Tension intensifies sympathetic activity which increases heart rate, raises blood pressure, narrows coronary arteries, causes clumping of platelets, often resulting in serious cardiac problems. Meditation retards the sympathetic activity, bringing about the dilatation of the narrowed arteries and thinning of blood.

Meditation slows down the rate of “Entropy” - in other words, wear and tear are reduced resulting in longevity.

Q.7 How do you meditate?

The technique is simple. You sit down in a relaxed manner. Close your eyes and simply watch the inhaling and exhaling of your breath. Thoughts may come and go. But remain unconcerned. Breath is life. When you are breathing, it is not only air that you breathe in; you breathe in light and lifeforce also. Thus your consciousness becomes one with your breath and your lifeforce and healing follows.

Out of 16 hours of our waking time, hardly for an hour and a half we live in the present. Most of the time, our awareness is in the past or the future. Meditation helps us to stay in the present moment. Dr. Dean Ornish says that

meditation enabled his patients to change their life-style, that is, it made it easy for them to become strict vegetarians and teetotalers.

Q.8 Dr. Kapadia, please tell us something about your replication here of Dr. Dean Ornish's program.

We started our program on Gandhi Jayanti day, October 2, '91. We meet twice a week on Tuesdays and Fridays in the evening from 6 to 7 p.m. at C. N. Vidyavihar, Ahmedabad. We start with light stretching and relaxation exercises followed by shavasana, meditation and end with group discussion and prayer. A feeling of connectedness fills the air which promotes healing. Isolation breeds disease, connectedness heals. This has been a subject of recent scientific research in many centres of Europe and USA. The technique evolved in this program to achieve the relaxation of body and mind is very simple and effective. The program has a great potential to make the response of the participants to everyday stress healthier. Dr. Dean Ornish has also noted that selfless benevolent work opens up the arteries, whereas self-centredness, hostility and cynicism are toxic to the heart; they constrict the arteries.

Q.9 It seems Dr. Kapadia, that you are happy with your program. Have you also scientifically tested the results?

Our experience is quite encouraging. A gentleman joined us out of sheer curiosity. Within less than six meetings, he gave up his 25 year old addiction to tobacco chewing. A 60 year old male was denied the benefit of bypass surgery, as

his coronary arteries were so extensively narrowed that the bypass was not feasible. After attending our program for six months, he is now leading a normal life.

When 7 of our participants were subjected to EEG test at 11.00 in the morning, our Neuro-Physician was simply astonished to observe their alpha activity. The kind of relaxation it revealed could not be normally had even after 6 to 7 hours of sound sleep.

This is borne out by another observation that mere three minutes of meditation reduces the oxygen consumption by 20% as against 8% reduction after six hours of sound sleep. A few of our participants have been able to put off by-pass surgery. Those who have undergone surgery feel happier and more confident after attending our program. Moreover, the program heals the person as a whole.

Our greatest limitation comes from our perception that we are individuals limited in space and time. During meditation, one experiences that one is eternal and boundless. The feeling of connectedness with the universe and wisdom dawn on the individual. This whole experience helps healing in toto. I venture to suggest that if such a program is incorporated in the school curriculum, it could bring about a great change in the human behaviour leading to a saner world.

Q. 10 Will you please tell us something more about Yoga and education?

Oh! This is a very important question. I feel that Yoga in the educational curriculum will complete our education. At the moment, our education is lopsided, largely science

oriented. There is nothing wrong with science. We have to know science. But the true identity of ourselves, that is the real knowledge of self is not attained by the pursuit of science. Therefore, in the Vedas the knowledge of science is called avidya. Let me explain : avidya does not mean anti-vidya. It is other than vidya. Vidya means the knowledge of self, the knowledge of ultimate reality. Yoga is a synthesis of science and vidya, or avidya and vidya. In the Vedas, the Rishi says that if you follow avidya, that is science without vidya, you are led into a blind alley. The Rishi does not stop here. He adds, if you follow vidya that is knowledge of self without avidya then it is worse. It is complete chaos “Ghor Andhkar”. In this program the way in which the person learns to relax his body and mind, his awareness turns towards the real knowledge-vidya. This leads to the healing of the individual as a whole. This is the summum bonum of the whole concept of Yoga.

Q. 11. Dr. Kapadia, would you please sum up this important topic of heart and Yoga?

This program is not a panacea or all cure. It does not claim to replace the traditional medical or surgical approach. However, I have no doubt in my mind that it has opened up new, very hopeful frontiers in the management of all stress related diseases like coronary heart disease, high blood pressure, peptic ulcer, arthritis, ulcerative colitis, various skin diseases and many more. This program has a solid scientific basis. It deserves a routine prescription for the treatment of stress related disease. Moreover, it has a capacity to heal the society as a whole, hence we have

named it the Universal Healing Program. Let me end by recalling Dalai Lama's tips to an eminent Harvard Cardiologist, who had gone to "Dharmasala" to study the benefits of meditation. The quintessence of Tibetan medicine consists of three conditions, vital to curing of any disease.

1. Doctor's faith in himself to cure his patient.
2. The patient's faith in his doctor that he will cure him.
3. Doctor's Karma - his skill and its application with love."

ON LIFE

I think that I shall die and that my life will come to an end; I feel sorry for myself and this thought frightens and torments me. But what will die? What do I feel sorry for? What, speaking quite straightforwardly, am I? In the first place I am flesh. So? Am I sorry for that? Am I afraid on behalf of that? I think not. After all, not one particle of body or substance can ever disappear. It appears that this part of me is provided for, that I have nothing to fear on its behalf. It will be kept safe. No-people say-that's not what I'm sorry for - I'm sorry for myself - Lev Nikolayevich, Ivan Semyonich... But then none of us is the person we were twenty years ago, we each become a different person every day. Which of these people am I sorry for? No-people say-that's not what I'm sorry for. I'm sorry for my consciousness, my I.

But then your consciousness hasn't always been the same either. It was different a year ago, more different ten years ago, and still more different before that; as far back as you can remember, it has always been changing. What do you like so much about your present consciousness, why are you so upset about losing it? If it had always been the same, then one could understand, but it has never done anything except change. You do not see and cannot find its beginning, yet suddenly you want it to have no end; you want the consciousness that is yours now to remain for ever. You have been on the move ever since you can remember. You

don't know how you came into this life, but you know you came as the special I which you still are. You travelled and travelled until you were half-way through and then you suddenly dug your heels in, half in joy and half in fright, saying you don't want to go any further because you can't see what's there. You didn't see the place you came from, and yet you arrive; you came in at the entrance, but don't want to leave by the exit.

Your whole life has been a passage through physical existence. You moved on, hurrying to go further, and now you suddenly feel sorry that what you have always been doing is still continuing to happen. You are afraid of the great change that will take place at the time of your physical death; but an equally great change took place at the time of your physical birth, and nothing bad came of that. On the contrary, what came of it was so good that you don't want to part with it.

What can be frightening you? You say you regret your you, with its present thoughts and feelings, its present view of the world, its present relationship with the world.

You are afraid of losing your relationship with the world. What is this relationship? What does it consist of?

If it consists of the way you eat, drink, reproduce, build houses and dress, the way you behave towards other people and animals, then every human being, as a rational creature, has such a relationship with life and it is impossible for this relationship to disappear. There have been, still are, and always will be millions of them; their species is as certain to endure as each particle of matter. The instinct for the preservation of the species is powerfully instilled into all animals; it is something so solid that there is no reason to

fear for it. If you are an animal, you have nothing to fear; if you are matter, then you can be still more assured of being eternal.

But if you are afraid of losing what is not animal, then you are afraid of losing your own special rational relationship to the world with which you entered this existence. But you know that this did not first appear at the time of your birth; it existed independently of the birth of your animal self and so cannot be affected by its death.

— Tolstoy

(Religious writing Tolstoy pp. 52-53)

Everything is alive; what we call dead is an abstraction
David Bhom