DR. H.K. BAKHRU
NATIONALLY ACCLAIMED NATUROPATH

NATUROPATHY FOR LONGEVITY

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DR. H.K. BAKHRU

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About the Author

Dr. H.K. Bakhru enjoys a countrywide reputation as an expert naturopath and a prolific writer. His well-researched articles on nature cure, health, nutritionand herbs appear regularly in various newspapers and magazines and they bear the stamp of authority.

A diploma holder in naturopathy, all his current 13 books on nature cure, nutrition and herbs titled,' A Complete Handbook of Nature Cure', 'Diet Cure for Common Ailments', 'A Handbook of Natural Beauty', 'Nature Cure for Children,' 'Naturopathy for Longevity', 'Healing Through Natural Foods', 'Indian Spices and Condiments as Natural Healers', 'Foods That Heal', 'Herbs That Heal', 'Natural Home Remedies for Common Ailments', 'Vitamins that Heal', 'Conquering Diabetes Naturally' and 'Conquering Cancer Naturally' have been highly appreciated by the public and repeatedly reprinted. His first-named book has been awarded first prize in the category 'Primer on Naturopathy for Healthy Living' by the jury of judges at the 'Book Prize Award' scheme, organized by 'National Institute of Naturopathy', an autonomous body under Govt, of India, Ministry of Health.

Dr. Bakhru began his career on the Indian Railways, with a first class first postgraduate degree in History from Lucknow University in 1949. He retired in October 1984 as the Chief Public Relations Officer of the Central Railway in Mumbai, having to his credit 35 years of distinguished service in the Public Relations organisations of the Indian Railways and the Railway Board.

An associate member of the All India Alternative Medical Practitioner's Association and a member of the Nature Cure Practitioners' Guild in Mumbai, Dr. Bakhru has extensively studied herbs and natural methods of treating diseases. He has been honoured with 'Lifetime Achievement Award', 'Gem of Alternative Medicines' award and a gold medal in Diet Therapy by the Indian Board of Alternative Medicines, Kolkata, in recognition of his dedication and outstanding contributions in the field of Alternative Medicines. The Board, which is affiliated with the Open International University for Complementary Medicines, established under World Health Organisation and recognised by the United Nations Peace University, has also appointed him as its Honorary Advisor Dr. Bakhru has also been honoured by Nature Cure Practitioners' Guild, Mumbai with Nature Cure Appreciation Award for his services to Naturopathy.

Dr. Bakhru has founded a registered Public Charitable Trust, known as D.H. Bakhru Foundation, for help to the poor and needy. He has been donating Rs. 25,000 every year to this trust from his income as writer and author.

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PREFACE

How can one keep fit in old age and live longer? This book explains at some length the various factors which contribute to health and fitness, and impart energy and vitality in old age. It also deals with diseases commonly prevalent in the elderly and prescribes time-tested nature cure methods for their treatment.

Fitness, however, is a relative term. It is difficult to find a person with perfect health these days. Faced with the growing complexities of modern life and the resultant crises — living in polluted environments and consuming denatured, refined foods — one has to make strenuous efforts today to keep himself fit, especially in old age. The task is even more difficult for the elderly persons like me, as I have suffered immensely from a very early age, mainly due to the shortcomings of the modern medical system. A brief case history will drive home the point.

My troubles began at 16, when I contracted dry pleurisy and typhoid fever simultaneously. Having run their course for about 45 days, both the ailments rendered me very weak. My recovery was gradual but not complete, as I soon developed heartburn and breathing trouble.

At 28, came the worst crisis, when I suffered a stroke in the early hours of an exceptionally hot day, following severe heartburn throughout the night. The stroke made the left side of my body extremely heavy and weak. The attending physician, suspecting a brain tumour, referred my case to a wellknown neurosurgeon. For some two months, I was subjected to drastic tests which failed to locate the imaginary brain tumour. The harrowing experience left me a complete wreck.

That was not the end of it. The focus of investigation shifted from the brain to the stomach. A barium meal examination revealed chronic duodenal ulcer. The various drugs prescribed for this disease and the continuing weakness and heaviness of my left side made my condition worse. I endured this for three years, until the pain and heaviness of the left side was miraculously cured by an astrologer. But nothing could rid me of the heartburn, abdominal pain and occasional stomach upsets. A barium meal examination, done when I was 39, also revealed hiatus hernia with peptic esophageal ulcers.

To add to all these, at 45, an eminent heart specialist declared me a heart patient. The heavy drugging and dieting that ensued completely ruined my health and resulted in insomnia and a weight loss of 15 kg. Two years later, another renowned heart specialist, whom I consulted, gave his opinion that there was no evidence, whatsoever, of heart trouble. He, however, confirmed the presence of duodenal ulcer and hiatus hernia. Then came a host of diseases in quick succession — cervical spondylosis, myalgia, backache and prostate enlargement. In treating all these diseases, the modern medical system failed miserably.

All this time, I was aware of the natural methods of treatment, but dared not adopt them because of my heavy dependence on drugs. Rather late in the day, at the age of 55, I made a determined bid to do away with all the medicines and take recourse to natural methods. I made a deep study of nature care, consulted expert naturopaths, made drastic changes in my diet and lifestyle, and started following the laws of nature rigidly. I was rewarded sooner than expected: so much so, that for one who narrowly escaped death at the age of 28, when my son was a year old, I can proudly say that today, at 73, when I have a 16-year-old grandson, I feel healthier, both physically and mentally. This is thanks mainly to my taking recourse to nature cure methods. Of course, I do not claim to have cured all my ailments. But I do maintain that I have been able to control them substantially.

The two dominant factors in the maintenance of my health now are: firm determination to keep fit and to forget that I suffer from any serious medical problem.

The various measures adopted in respect of the first factor include consumption of natural, unrefined foods as far as possible, regular practice of yogasanas and other physical exercises, especially walking, occasional use of hydrotherapy, avoidance of late hours and following other laws of nature. Of course, I do make exceptions and indulge occasionally in delicacies of refined foods and other hazardous substances, as otherwise, life will not be worth living.

With regard to the second factor, I keep myself fully occupied so as to avoid all thoughts about my illness. I devote my entire daytime for popularising nature cure by writing articles and books on the subject and offering personal and postal advice to those who seek my help in solving their health problems. I also keep myself busy with various charitable activities of the D.H. Bakhru Foundation, a registered public charitable trust founded by me, with a yearly contribution of Rs. 25,000 to help the poor and needy. I have, in about 13 years' time, since my retirement, contributed over 2,000 articles in newspapers and magazines and written 10 books on nature cure, health and nutrition, of which eight have already been published and have proved to be best-sellers.

I am doing all this, mind you, despite being a handicapped person. I suffer from extremely low vision due to degeneration of retina of both the eyes. my right eye's vision is negligible and I can read typed letters only with the help of a high-powered magnifying glass fitted in the left side of the spectacles. I earnestly hope that this will serve as an inspiration to my fellow senior citizens to keep themselves occupied with constructive activities irrespective of the difficulties they face.

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UNITED NATIONS PRINCIPLES FOR OLDER PERSONS

To add life to the years that have been added to life

THE GENERAL ASSEMBLY,

APPRECIATING the contribution that older persons make to their societies,

RECOGNIZING that, in the Charter of the United Nations, the peoples of the United Nations declare, inter alia, their faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women, and of nations large and small; and to promote social progress and better standards of life in larger freedom.

NOTING the elaboration of these rights in the Universal Declaration of Human Rights (General Assembly resolution 217 A(III) of 10 December 1948), the International Convenant on Economic, Social and Cultural Rights and the International Convenant on Civil and Political Rights (General Assembly resolution 2200 A(XXI), annex, of 16 December 1966) and other declarations to ensure the application of universal standards to particular groups,

IN PURSUANCE of the International Plan of Action on Ageing adopted by the World Assembly on Ageing and endorsed by the General Assembly in its resolution 37/51 of 3 December 1982,

APPRECIATING the tremendous diversity in the situation of older persons, not only between countries but within countries and between individuals, which requires a variety of policy responses,

AWARE that in all countries, individual are reaching an advanced age in greater number and in better health than ever before.

AWARE of the scientific research disproving many stereotypes about inevitable and irreversible declines with age,

CONVINCED that in a world characterised by an increasing number and proportion of older persons, opportunities must be provided for willing and capable older persons to participate and contribute to the ongoing activities of society.

MINDFUL that the strains on family life in both developed and developing countries require support for those providing care to frail older persons.

BEARING in mind the standards already set by the International Plan of Action on Ageing and the conventions, recommendations and resolution of the International Labour Organisation, the World Health Organization and other Untied Nations entities,

ENCOURAGES Governments to incorporate the following principles into their national programmes whenever possible:

Independence

(1) Older persons should have access to adequate food, water, shelter, clothing and health care through the provision of income, family and community support and self-help.

(2) Older persons should have the opportunity to work or to have access to other income-generating opportunities.

(3) Older persons should be able to participate in determining when and at what pace withdrawal from the labour force takes place.

(4) Older persons should have access to appropriate educational and training programmes.

(5) Older persons should be able to live in environments that are safe and adaptable to personal preferences and changing capacities.

(6) Older persons should be able to reside at home for as long as possible.

Participation

(7) Older persons should remain integrated in society, should participate actively in the formulation and implementation of policies that directly affect their well-being and should share their knowledge and skills with younger generations.

(8) Older persons should be able to seek and develop opportunities for service to the community and to serve as volunteers in positions appropriate to their interests and capabilities.

(9) Older persons should be able to form movements or associations of older persons.

Care

(10) Older persons should benefit from family and community care and protection in accordance with each society's system of cultural values.

(11) Older persons should have access to health care to help them to maintain or regain the optimum level of physical, mental and emotional well-being and to prevent or delay the onset of illness.

(12) Older persons should have access to social and legal services to enhance their autonomy, protection and care.

(13) Older persons should be able to utilize appropriate levels of institutional care providing protection, rehabilitation and social and mental stimulation in a humane and secure environment.

(14) Older persons should be able to enjoy human rights and fundamental freedoms when residing in any shelter, care or treatment facility, including full respect for their dignity, beliefs, needs and privacy and for the right to make decisions about their care and quality of life.

Self-fulfilment

(15) Older persons should be able to pursue opportunities for the full development of their potential.

(16) Older persons should have access to the educational, cultural, spiritual and recreational resources of society.

Dignity

(17) Older persons should be able to live in dignity and security and to be free of exploitation and physical or mental abuse.

(18) Older persons should be treated fairly regardless of age, gender, racial or ethnic background, disability or other status, and to be valued independently of their economic contributions."

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SECTION I

GENERAL ASPECTS

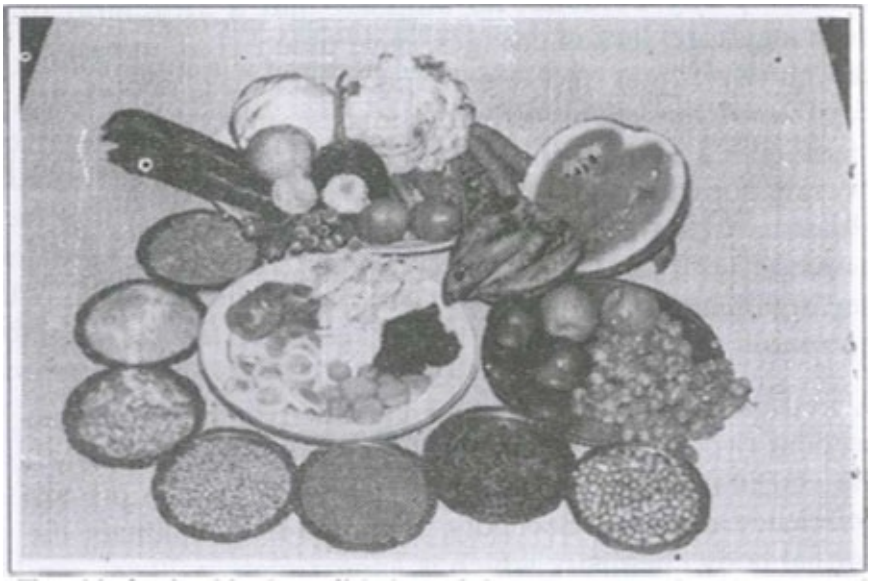
CHAPTER 2

NUTRITION FOR VIGOUR AND VITALITY IN OLD AGE

Nutrition plays a vital role in the maintenance of good health and in the prevention and treatment of disease. There is hardly any evidence to suggest that a structural or functional age-related changes, have much of an impact on the ability to eat and digest food. Most old people are capable of reasonably effective mastication. Even where masticatory ability is poor, there is little evidence that overall nutrition suffers. Although atrophic gastritis and abnormalities of the small bowel mucosa become more common with advancing age, these changes do not cause any significant impairment of the ability to absorb food in general.

A well-balanced correct diet for the elderly should take into account two important factors. Firstly, it should supply all the essential nutrients needed by the body so as to prevent deficiency diseases. Secondly, it should help maintain the normal body chemistry which is approximately 20 per cent acid and 80 per cent alkaline. It has been found that a diet which contains liberal quantities of (i) seeds, nuts and grains, (ii) vegetables and (iii) fruits, would provide adequate amounts of all the essential nutrients. These foods have, therefore, been aptly called basis food groups and the diet containing these foods, as optimum diet for vigour and vitality.

Seeds, nuts and grains are the most important and the most potent of all foods. They contain the germ, the reproductive power which is of vital importance for the health of human beings. Seeds, nuts and grains are also excellent natural sources of essential unsaturated fatty acids necessary for health. They are also good sources of lecithin and most of the B Vitamins and the best natural sources of Vitamin C, which is perhaps the most important vitamin for the preservation of health in old age and prevention of premature ageing.



The elderly should take well-balanced diet consisting of seeds, nuts and grains, vegetables and fruits

Vegetables are an extremely rich source of minerals, enzymes and vitamins. Faulty cooking and prolonged careless storage, however, destroy these valuable nutrients. Most vegetables are, therefore, best consumed in their natural raw state in the form of salads. To prevent loss of nutrients in vegetables, it would be advisable to steam or boil vegetables in their juices on a slow fire and the water of cooking liquid should not be drained off.

Like vegetables, fruits are excellent sources of minerals, vitamins and enzymes. They are easily digested and exercise a cleansing effect on the blood and digestive tract. They contain high alkalising properties, a high percentage of

water and a low percentage of proteins and fats. Fruits are at their best when eaten in the raw and ripe states.

These three basic health-building foods should be supplemented with certain special protective foods such as milk, vegetable oils and honey. Milk is considered as “Nature’s most nearly perfect food”. The best way to take milk is in its soured form, that is, yogurt, buttermilk and cottage cheese. Soured milk is superior to sweet milk as it is in a predigested form and more easily assimilated. High quality unrefined vegetable oils should be added to the diet. They are rich in unsaturated fatty acids, Vitamin C and F and lecithin. The average daily amount should not exceed two tablespoons. Honey, too, is an ideal food. It helps increases calcium retention in the system, prevents nutritional anaemia, besides being beneficial in kidney and liver disorders, colds and poor circulation. It is one of the finest energy-giving foods.

The diet of the elderly should be so arranged as to provide 80 per cent of alkaline forming foods such as ripe fruits, tubers, leafy and root vegetables, and 20 per cent acidforming foods such as bread, cereals and meats so as to maintain proper acid-alkaline balance in the body. Eating sensibly in this manner will ensure the necessary alkalinity of the blood, which will keep the body in perfect health in old age. The chart showing the common foods with acid and alkaline ash is given in the appendix.

Errors in nutrition either by overfeeding or underfeeding result in premature ageing. One of the important characteristics of really old and healthy people is moderation in all matters. The diet should contain all the required ingredients for maintaining the health without taxing the gastrointestinal system. The general rules pertaining to diet for the attainment of healthy old age are as follows:

(i) Foods should be eaten slowly and chewed thoroughly as digestion begins in the mouth.

(ii) Foods which are very hot or very cold should be avoided.
(iii) Any drink taken with meals or up to an hour later interferes with the digestion.
(iv) Simple meals without sauces are easier to digest.
(v) Fried and roasted foods are difficult to digest and should, therefore, be taken in small quantities.
(vi) The ideal diet for the elderly should consist of 10 per cent protein, 20 per cent carbohydrates, 5 per cent fats and 65 per cent fruits and vegetables.

Two nutritional disasters, which undermine the health and vigour, are white flour and white sugar and all articles of food which have both or one of these items as main ingredients. This covers a wide range of food products such as breads, cakes, biscuits, sweets, jams and soft drinks. Harmful effects of such foods have been discussed in Chapter 5.

Refined carbohydrates and saturated fats constitute a threat to real nutrition. They are made worse because of toxic food additives, pesticides, growth stimulants, preservatives and colouring agents. Their continued use leads to decline in health and resistance to disease as the years progress. This eventually results in crippling diseases which do not kill. Such crippling diseases, especially various forms of arthritis, however, limit life and make old age difficult.

The elderly should also observe the rules of food combining, which is a simple, scientifically based system of selecting foods, from among many different types, which are compatible. This will facilitate easy and efficient digestion and ensure after-meal comfort. It is the combining of many varieties and incompatible foods at a meal that causes 90 per cent of digestive disorders.

The most important rule for combining foods is to avoid mixing protein and carbohydrates concentrated foods and to avoid mixing carbohydrates and acid fruits in the same meal. Protein foods are best digested when eaten with fresh

vegetable salad. They also combine very well with sub-acid fruits. Other important rules for food combining are to avoid mixing proteins and fats and mixing carbohydrates and acid fruits at the same meal. In a nutshell, starches, fats, green vegetables and sugars may be eaten together as they require either an alkaline or neutral medium for their digestion. Similarly, proteins, green vegetables and acid fruits, may be eaten together as they require an acid or neutral medium for their digestion. But starches and proteins, fats and proteins and starches and acid fruits should not be eaten together as a general rule.

The food combining chart given in the appendix represents diagramatically food combining rules in an easy-to-follow method. Accompanying this chart is the list of foods in their correct classification. An important point which the elderly should remember about meals is that the smaller the number of courses they consist of, the better it will be. They should approximate to a one-course meal as much as possible. Simple meals in every way are more conducive to health, than more elaborate ones, no matter how well they may be combined.

Daily Menu

Taking the main factors in view, namely supply of all essential nutrients in the diet and balancing the body chemistry and other special requirement of foods, the daily menu of health and vitalising diet for the elderly should be on the following lines:

1. **Upon arising:** A glass of lukewarm water with a half freshlysqueezed lime and a teaspoon of honey, or 25 black raisins soaked overnight in water along with water in which they are soaked and water kept overnight in copper vessel, or a glass of freshlysqueezed juice of any available seasonal fruits like apple, pineapple, lemon, orange and grapes.
2. **Breakfast:** Fresh fruits such as apple, grapes, pear, peaches, pineapple,

papaya, a glass of milk sweetened with honey and a few almonds or seeds like sunflower and pumpkin seeds.

3. **Lunch:** A bowl of freshly-prepared steamed vegetables such as carrot, cabbage, cauliflower, bottle gourd, pumpkin, beans, two or three whole wheat chapatis or cooked brown rice and a glass of butter milk.
4. **Mid-afternoon:** A glass of vegetable or fruit juice or coconut water.
5. **Dinner:** A bowl of fresh green vegetable salad. Use all available vegetables such as lettuce, carrot, cabbage, cucumber, tomato, radish, red beet and onion and sprouts such as alfalfa and mung beans with lemon juice dressing. This may be followed by a hot course such as vegetable soup and a slice of whole meal bread or a small quantity of lightly-cooked vegetables and a whole wheat chapati.
6. **Bedtime snack:** A glass of milk or one apple.

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CHAPTER 3

VITAMINS AND MINERALS CAN SLOW DOWN AGEING

It is now recognised that years of faulty nutrition speeds up the process of ageing. Deficiencies of vitamins and minerals can have detrimental effects on the health of the elderly. Recent studies indicate that certain vitamins possess antioxidant properties and prevent oxidation process. These vitamins are A, E, C and B-carotene. They can by virtue of these properties delay the ageing process. They also prevent degeneration in blood vessels, heart joints and eye lens.

VITAMINS

Among vitamins, the most important are vitamins A, B, C, D and E.

Vitamin A is essential for growth and vitality. It builds up resistance to respiratory and other infections and works mainly on the eyes, lungs, stomach and intestines.' It prevents eye diseases and plays a vital role in nourishing the skin and hair.

There are a large variety of vitamins in the B group, the more important being B1 or thiamine, B2 or riboflavin, B3 or niacin or nicotinic acid, B6 or pyridoxine, B9 or folic acid, B12 and B5 or pantothenic acid. Known as antiberiberi and anti-ageing vitamin, vitamin B1 plays an important role in the normal functioning of the nervous system, the regulation of carbohydrates and

good digestion.

Vitamin B2 is essential for growth and general health and also for healthy eyes, skin, nails and hair. Vitamin B3 is vital for proper circulation, the healthy functioning of the nervous system and for proper protein and carbohydrate metabolism.

Vitamin B6 helps in the absorption of fats and proteins, prevents nervous and skin disorders and protects against degenerative diseases. Vitamin B9, along with vitamin B12, is necessary for the formation of red blood cells. Vitamin B5 stimulates the adrenal glands and increases the production of cortisone and adrenal hormones. Vitamin B12 is essential for the proper functioning of the central nervous system, the production and regeneration of red blood cells and proper utilisation of fat for body building.

Vitamin C is indispensable for normal growth and the maintenance of practically all the body tissues, especially those of the joints, bones, teeth and gums. It protects against infections and acts as a general antibiotic. Vitamin D is necessary for proper bones and teeth formation and for the healthy functioning of the thyroid gland. Vitamin E is must for normal reproductory functions, fertility and physical vigour. It prevents unsaturated fatty acids, sex hormones and fat solvable vitamins from being destroyed in the body by oxygen.

Vitamin C and calcium matter more in old age. Elderly persons who have been deficient in these two nutrients for a long time, will have bones that break easily in a minor fall or injury. Brittle bones are thus not so much due to advancing years as to a serious lack of Vitamin C and calcium. Deficiency of Vitamin C can also lead to weakening of tissues, resulting in rapid ageing. This vitamin also helps to deal effectively with the invading bacteria and viruses that cause infections.

Other diseases which can result from Vitamin C deficiency are pyorrhoea and scurvy. In pyorrhoea, the gums are inflammed and spongy and bleed readily. The bone of the teeth is injured, forming areas of infection. Scurvy, which is quite common in the elderly, can lead to wrinkling, loss of skin elasticity, loss of teeth and brittle bones. A lack of Vitamin C slows down the normal healing processes of the body. The tissue formed to heal wounds, known as scar tissue, requires Vitamin C for its strength.

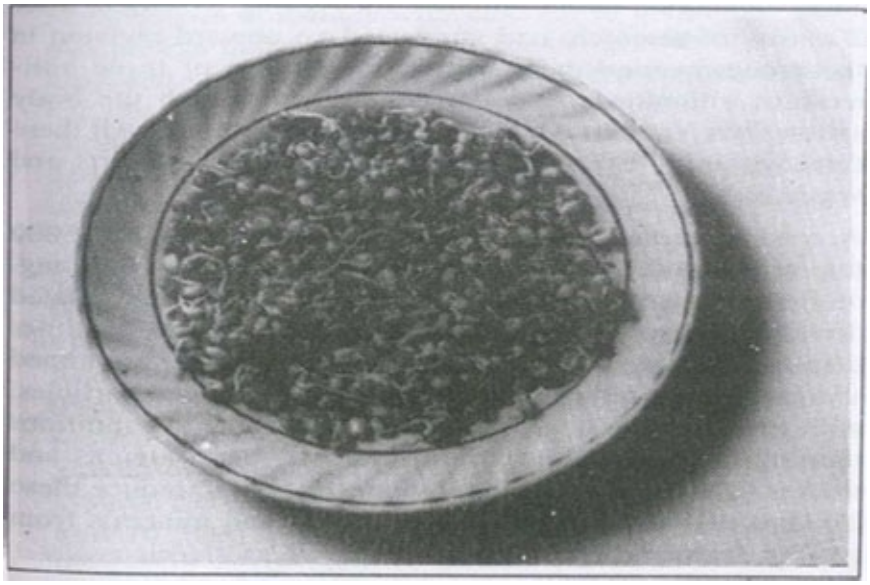
Research has shown that the body makes heavy demands upon its reserves of Vitamin C during colds, influenza, sinus and catarrhal infections, throat trouble, rheumatic ailments and lung infections. Tests have revealed that patients with these diseases have an extremely low reserve of Vitamin C. Older people suffering from these conditions should, therefore, increase their intake of Vitamin C very considerably. In large daily doses upto 2,000 mgms. Vitamin C has proved effective in such allergic complaints as hay fever, eczema, asthma and hives. When large doses of Vitamin C are used, calcium should also be taken with it.

It is considered that as one gets older, the normal Vitamin C intake should be increased. Elderly people bruise easily which is indicative of capillary weakness. Moreover, they often suffer from a lack of hydrochloric acid, which can cause destruction of Vitamin C in the intestines. Any deficiency of hydrochloric acid can be overcome by intake of Vitamin A and the B complex vitamins, as they stimulate the secretion of hydrochloric acid. This in turn will help absorption of Vitamin C effectively.

Another vitamin which is of great value to older persons is Vitamin E. Shortage of this vitamin can prove very harmful in old age. Vitamin E is an essential substance found in every tissue of the body. It protects the cells of the body against incipient destructive oxidation in the wrong places. It dilates the

capillaries and enables blood to flow freely into damaged anaemic muscle tissue. It decreases the oxygen requirements of muscle tissue by approximately 50 per cent and diminishes pain and breathlessness. This vitamin dissolves blood clots and prevents their formation. It prevents the formation of excessive scar tissue, and in some instances even melts away unwanted scar tissue.

Vitamin E helps prevent atherosclerosis, strokes and high blood pressure and reduces the risk of heart attacks. Studies have shown that Vitamin E along with selenium can effectively block cancer. Those who have low selenium and Vitamin E in the blood are more prone to develop cancer.



Vitamin E — rich foods like sprouted moong beans can slow down dgeing process.

Researchers believe that Vitamin E may be a key factor in slowing the process of ageing. Thus taking Vitamin E in sufficient amounts may enable a person of 60 years to look, feel, act and be more like a person of 50 years. Foods rich in Vitamin E are all whole, raw or sprouted seeds, nuts, whole grain cereals, eggs and green leafy vegetables. These foods retard the ageing process. Vitamin E is now being extensively used by the medical profession in treating a variety of

diseases, including male infertility, muscular dystrophy, menopausal disorders and coronary heart diseases.

The Washington-based Alliance for Ageing Research, after 20 years of research, had suggested an upward revision in the recommended daily allowance (RDA) of three antioxidant vitamins, the B-carotene (from which the body synthesises Vitamin A), Vitamin C and Vitamin E. All these three vitamins can normally be obtained from fruits and vegetables.

According to the new RDAs, adults should take 250-1000 mg. of Vitamin C, 100-400 IU of Vitamin E and 10-30 mg. of Beta-carotene every day, to prevent chronic age-related diseases. These allowances are higher by four to 16 times than the current RDAs. These recommendations are aimed at fighting free radicals, the small highly-charged particles, with strong oxidizing power, which contribute to conditions ranging from cancer to atherosclerosis, heart attacks and strokes. The three antioxidant vitamins help to reduce these free radicals and protect other vitamins and minerals from getting destroyed by oxidation.

MINERALS

Minerals are vital to health. They are essential for regulating and building the trillions of living cells which make up the body. The more important mineral elements needed by the body are calcium, phosphorous, iron, sulphur, magnesium, sodium, potassium chlorine and iodine.

Calcium, known as the ‘wonder mineral’, performs many important functions. Without calcium, the contractions of the heart would be faulty, the muscles would not contract properly to make the limbs move and blood would not clot. Calcium stimulates enzymes in the digestive process and coordinates the functions of all other minerals in the body. Phosphorous combines with calcium

to create the calcium phosphorus balance necessary for the growth of bones and teeth and in the formation of nerve cells. It is also essential for the assimilation of carbohydrates and fats. It is a stimulant to the nerves and brain. Iron exists chiefly as haemoglobin in the blood. It distributes the oxygen inhaled into the lungs to all the cells. It is the master mineral which creates warmth, vitality and stamina.

The main purpose of sulphur is to dissolve waste minerals. It helps to eject some of the waste and poisons from the system. It helps keep the skin clear of blemishes and makes hair glossy. Magnesium is cool, alkaline, refreshing and sleep-promoting. It assists in the functioning of the nervous system and the composition of nerve and muscle cells. It aids in digestion and in the elimination of waste from the system. Sodium is needed for digestion, blood purification and for the manufacture of gland hormones. It is a necessary constituent of gastric juices and is of utmost importance in neutralising acidity in the body.

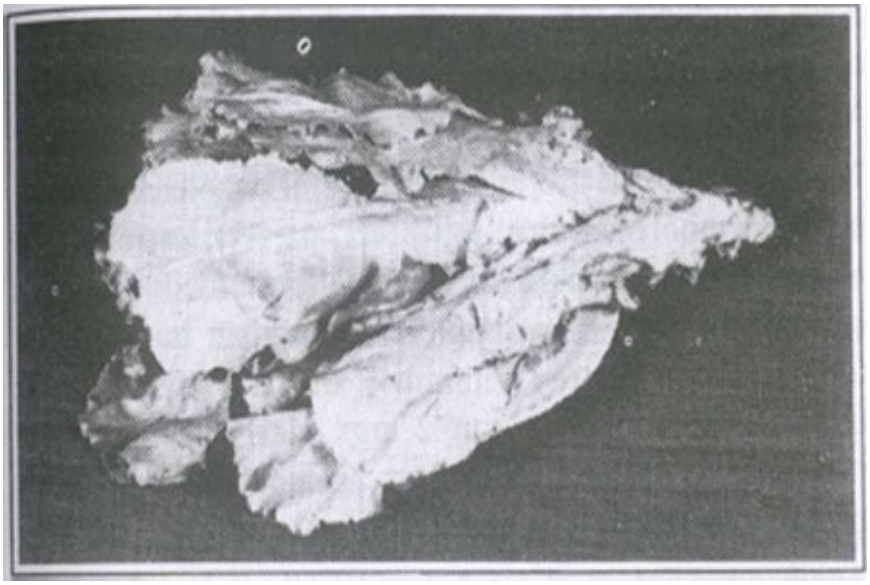
Potassium regulates the normal contraction and relaxation of all muscles. It builds up new tissues, flesh, bones and muscles. It also keeps the joints and arteries flexible. Chlorine is necessary for the formation of natural hydrochloric acid in the stomach and also for the manufacture of glandular hormone secretions. It prevents the building of excessive fat and auto-intoxication. Iodine is essential for the formation of thyroxin — the thyroid hormone which regulates much physical and mental activity. It regulates the rate of metabolism, energy production and body weight and helps prevent rough and wrinkled skin.

It has been found that calcium is deficient in the modern diet, and particularly so, in the diet of older people. One of the many purposes of calcium in nutrition is to transport nerve impulses. When it is in short supply, nerves and muscles are tense, leading to irritability and fatigue. A deficiency of this mineral can also cause cramps. Which often appear in old people, usually in the leg muscles or

feet.

Insomnia, which is quite common in old age, can be dispelled by the use of calcium, as it relaxes muscles and nerves. Three calcium tablets, taken with a glass of warm milk at bed time, will usually bring sound, refreshing sleep to many older people who do not sleep well. The use of calcium has also been found beneficial in relieving pain. It can be taken in tablet form by older people who are troubled with headache, digestive disorders and arthritis. Other diseases which can be treated by this mineral are menopausal disorders and irritability of nerves and muscles.

The richest sources of calcium are raw milk and unprocessed cheese. Other good food sources are soya beans, lima beans, string beans, cabbage, cauliflower, dates, molasses, turnip tops, egg yolk, dried figs and lettuce



Elderly should liberally take calcium rich food like lettuce.

Calcium is largely retained in the body by being combined with phosphorus and Vitamin D is necessary before phosphorus can be absorbed efficiently. It follows, therefore that without adequate Vitamin D, phosphorus cannot be utilized; thus a portion of the body’s calcium cannot be retained and is excreted

from the body.

Vitamin D is important for the proper assimilation of calcium. Older people can readily get this Vitamin by taking a walk in the sunshine. The ultra-violet rays in sunlight cause the oil glands of the skin to secrete a provitamin called ergosterol, which is converted into Vitamin D and absorbed into the body through the skin.

According to Adelle Davis, an eminent nutritionist, the daily menu must include iron. A lack of iron in the diet causes nutritional anaemia, which is characterised by low blood pressure, poor appetite, extreme tiredness, dizziness, forgetfulness and shortness of breath. The most common cause of anaemia is a diet lacking in iron. Another factor responsible for this disease is inadequate hydrochloric acid in the stomach, without which iron cannot be assimilated. With advancing age, the secretion of hydrochloric acid tends to diminish. The vitamins needed to stimulate a flow of hydrochloric acid are Vitamin A, niacinamide and Vitamin B.

Foods rich in iron are liver, wheatgerm, wholemeal flour, oatmeal unpolished rice, red beets, parsely, carrots, raw onions, apples, bananas and cherries. These foods are more effective in combating simple anaemia than iron pills or tonics, which destroy Vitamin E in the body. A small quantity of copper, about 2 mgs. daily seems to be necessary to enable iron to form haemoglobin. However, many foods rich in iron also contain copper.

Another mineral which is of great importance in old age is iodine. The chief storehouse of iodine in the body is thyroid gland. The essential thyroxine secreted by this gland is made by the circulating iodine. In the body, iodine is converted from the foods rich in this mineral. Thyroxine is a wonder chemical which controls the basic metabolism and oxygen consumption of tissues. It regulates the rate of energy production and body weight and promotes proper

growth. It improves mental alacrity and promotes healthy hair, nails, skin and teeth.

Deficiency of iodine can lead to myxodema, which is charecterised by slower rate of metabolism, thickening of the skin, loss of hair, general physical and mental sluggishness and enlarged thyroid gland. Dietary lack may lead to anaemia, fatigue, lethargy, loss of interest in sex, slowed pulse, low blood pressure and a tendency towards obesity. The best dietary sources of iodine are kelp and other seaweeds. Other good sources are turnip greens, garlic, water cress, pineapples, pears, citrus fruits, egg yolks, seafoods and fish liver oils.

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CHAPTER 5

HARMFUL FOODS THAT HASTEN AGEING

There is a growing tendency in modern times to make the articles of diet as artificial and pleasing to the eye as possible and tasty to the tongue, without any regard to their ultimate effect on health. This has led to the refining and demineralising of cereals and sugar and addition of salt to various foodstuffs to make them tasty and delicious. Fortunately, there is realisation now among the enlightened people that the artificial and concentrated dietary, to a large extent, is responsible for the vast array of present-day diseases.

Foods such as bread, cereals and sugar are very acid-forming, if eaten in the refined state as white bread, white sugar and polished rice. But these foods are far less acid-forming in character if eaten in the natural state as natural brown sugar, as whole meal bread and as natural brown rice. The excessive use of salt also leads to the formation of acids in the body.

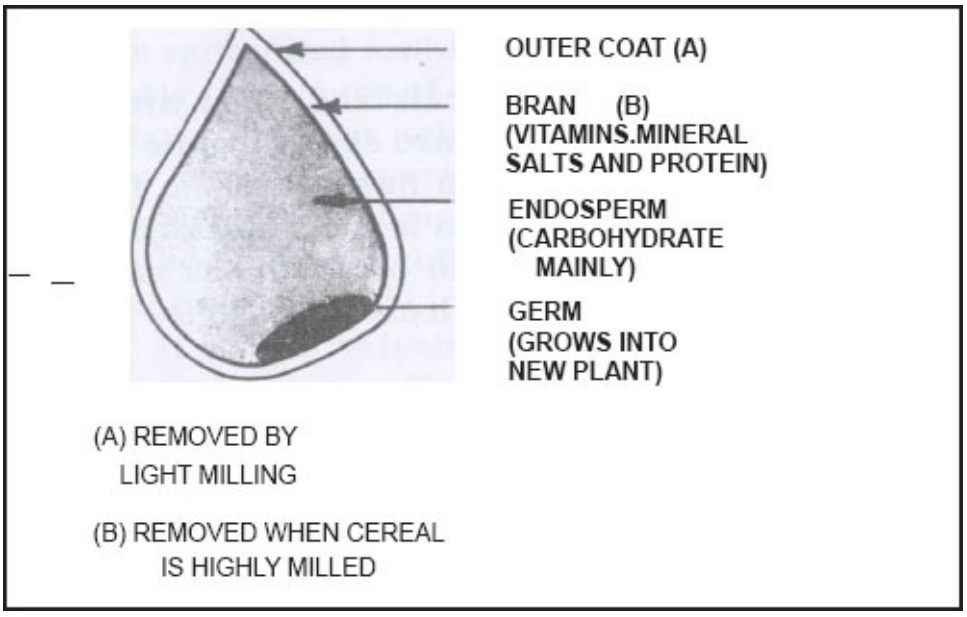
Of the various articicial foodstuffs being used today for their delicious taste, white flour, sugar and salt, known as three white products, have been found especially harmful. Similarly, excessive consumption of tea and coffee is very injurious to health and can lead to weakening of the system. The harmful effects of all these foods are discussed in this chapter.

White Flour

Wheat is the most common cereal used throughout the world for making bread. It is good source of energy. With its essential coating of bran, vitamins and minerals, it is an excellent health-building food.

The wheat grain is a seed which consists of three main parts, namely, the various outer coverings, endosperm and the germ or embryo. The outer coverings contain much indigestible fibre. Beneath them is the aleurone layer which is rich in protein. Inside is the endosperm which consists of an inner and outer portion. The germ or embryo which consists of the shoot and root. It is attached to the grain by a special structure, the scutellum.

The germ of the wheat is relatively rich in protein, fat and several of the B Vitamins. So is the scutellum which contains 50 times more thiamine than the whole grain. The outer layers of the endosperm and the aleourone layer contains a higher concentration of protein, vitamins and phytic acid than the inner endosperm. The inner endosperm contains most of the starch and protein in the grain.



The refining of whole wheat results in colossal loss of vitamins and minerals

Wheat is usually ground into flour before use as food. In ancient times, wheat grains were crushed between two large stones. This method preserved all parts of the Kernel and the product was called “whole wheat”. If it is finely ground, it becomes whole wheat flour. The value of stone grinding is that the grain is ground slowly and it remains unheated, and a whole food. In modern times, steel roller mills have superseded stone grinding. These mills grind wheat a hundred times faster, but they impoverish the flour by removing the precious wheat germ, resulting in colossal loss in vitamins and minerals in the refining process. The following tables show the food values of various types of wheat (per cent per 100 grams).

Type of Wheat	Moisture gm.	Protein gm.	Fat gm.	Minerals gm.	Fibre gm.	Carbohydrats gm.	Energy gm.
Wheat (Whole)	12.8	11.8	1.5	1.5	1.2	71.2	346
Wheat Flour (Whole)	12.2	12.1	1.7	2.7	1.9	69.4	341
Wheat Flour (Refined)	13.3	11.0	0.9	0.6	0.3	73.9	348
Wheat Germ	5.2	29.2	7.4	3.5	1.4	53.5	397
Type of Wheat	**Carotene Meg.**	**Thiamine Mg.**	**Riboflavin Mg.**	**Niachin Mg.**	**Calcium Mg.**	**Phosphorus Mg.**	**Iron Mg.**
Wheat (Whole)	64	0.45	0.17	5.5	41	306	4.9
Wheat Flour (Whole)	29	0.49	0.29	4.3	48	355	11.5
Wheat Flour (Refined)	25	0.12	0.07	2.4	23	121	2.5

In the refining of whole wheat, the precious wheat germ is removed. By doing so, we remove the very life of the grain of wheat, because locked in the wheat germ is an oil which is man’s greatest food. The wheat germ also contains all-important Vitamin E, known as the anti-sterility factor or sex vitamin. A lack of this vitamin can also lead to heart disease. The colossal loss of vitamins and minerals in the refined wheat flour has lead to widespread prevalence of constipation and other digestive disturbances and nutritional disorders.

White Sugar

Sugar is the most common sweet carbohydrate used all over the world. There are many varieties of sugar, but only a few are included, to any considerable extent, in our dietary. These are sucrose or cane sugar, dextrose or grape sugar, levulose or fruit sugar and lactose or milk sugar. Natural sugar contained in fruits is called fructose.

Cane sugar, also called the white sugar, is produced in enormous quantities. It is derived commercially from the sugar cane and beet root. When it is eaten, it is slowly converted into levulose and dextrose, for it cannot be utilised by the body in its native form. It must first undergo a digestive process as does starch. But, unlike starch, the digestion of cane sugar does not begin in the mouth, but is delayed until the sugar reaches the intestine.

There has been enormous increase in the consumption of sugar all over the world. Commensurate with the sharp rise of sugar consumption, there has been an alarming increase in the incidence of several diseases. There is mounting evidence from many medical sources that white sugar is extremely injurious to health. The heat and chemical process employed in the sugar refinery kills the vitamins and separates the mineral elements, protein and other substance from the sap, leaving nothing but pure sugar crystals, robbed of mineral elements and the life-sustaining vitamins.

The elderly should avoid products made from white sugar such as sweets.

White sugar has many great disadvantages. It is irritating and it is difficult to digest. It is called the vitamin thief. Its high intake can rob the body of its vitamins made available to it by consumption of other foods. Excessive use of white sugar leads to gastric catarrh and hyperacidity. It is also associated with obesity, dental caries, diabetes and coronary heart disease.

The white sugar supplies only calories without any nutritive value. It contains as many as 390 calories per 100 grams. It has been estimated that 90 per cent of overweight persons consume much more sugar than required. Eating sugar adds to calories. These are stored in the form of fat.

Another problem with sweet foods is that they can easily be overeaten because of their delicious taste. Cakes, pastries, biscuits and chocolates are some of the items that have a high sugar content and therefore have many calories. For instance, half a small bar of chocolate provides same amount of calories as five apples, but it does not contain the nutrients and fibre that the fruit provides. Thus, if two apples are eaten, it gives a sense of satisfaction due to its fibre content and less calories are ingested. On the other hand, while eating chocolates

or sweets, more and more can be eaten without a sense of fullness and therefore, more calories are ingested, leading to obesity.

The most harmful effects of sugar is on the teeth. It dissolves quickly in saliva and finds its way into the bacterial layer on the teeth, known as plaque. It feeds on sugar and converts into acid. This acid eats away the enamel and causes cavities. This acid is produced within seconds of the sugar entering the mouth and attacks the tooth enamel as long as the sugar remains in contact with the teeth. For this reason, both the amount of sugar eaten and its frequency during the day, are important. Sugary foods like biscuits, cakes, fruits and drinks, taken often between the meals, therefore, cause tooth decay. Sticky foods such as toffee and dry fruits that cling to the teeth, are particularly harmful.

Dr. D. T. Quigley, M.D., an eminent medical authority, says: “Sugar is a concentrated carbohydrate, containing no vitamin or mineral of any kind. Every ounce of sugar that is taken reduces the ability to resist infection, as it furnishes only calories and none of the elements which protect against infection”.

Natural sugars such as brown sugar, unsulphured dark molasses and honey, are preferable to refined white sugar, because they possess some vitamins and minerals. Raw honey also contains enzymes.

White Salt

Man’s need for sodium chloride, the chemical name for the common salt, has been a subject of dispute since the beginning of medical practice. The first known salt mines have been found in the Austrian Tyrol and date from the late Bronze Age, about 1,000 B.C. It is not known accurately when man first began to use salt. However, salt was available in the early civilisation and Homer called it ‘divine’.

Sodium chloride is a chemical compound found in the sea soil and it also occurs naturally in foods. It is made up of two chemicals, namely, sodium, an element which never occurs in free form in nature, 40 per cent and chloride 60 per cent.

Sodium chloride is a major factor in maintaining acid-base equilibrium of the body. It is also needed for the working of various nerves and muscles of the body and helps in transmitting nerve impulses. It can help prevent catarrh. It promotes a clear brain, resulting in a better dispostion and less mental fag. Because of its influence on calcium, sodium can also help dissolve any stones forming within the body, in the kidneys, urinary bladder and gall bladder. It is also essential for the production of hydrochloric acid in the stomach.

Thus, a certain amount of salt in the system is essential for life, but it is required in very small amounts, ranging from 10 to 15 grams daily, depending on the climate and occupation of the person. Many people, however, use salt too much. This puts an extra burden on the kidneys and may cause high blood pressure.

Too much salt in the body can result in oedema or swelling of the legs and ankles. This is due to incomplete elimination of salt through the kidneys. The blood pressure may rise and may not go down again until the excess sodium has been removed from the body.

Intake of too much salt can attract water, creating an artificial thirst. So a person drinks enormous quantities of water and this leads to obesity in due course. Excessive intake of salt can also lead to stomach ulcer, stomach cancer, hardening of arteries and heart disease.

The adverse effects of excessive use of sodium chloride can be rectified by avoiding the use of common salt. Even foods rich in salt such as salted nuts, biscuits, meat, fish, chicken, egg, cheese, dried fruits, spinach, carrot and radish

should be avoided. However, low-sodium foods like cereals, sugar, honey, fresh fruits, brinjals, cabbage, cauliflower, tomatoes, potatoes, onions, peas and pumpkin can be used.

It will also be advisable to omit salt altogether in case of all chronic diseases like high blood pressure, arthritis and allergies. In case total avoidance is not possible, it may be added in a very small quantity after cooking. This will prevent it from getting into every particle of the food, which will happen if salt is added before cooking. Salt added after cooking will be just superficial and only to satisfy the taste.

TEA & COFFEE

Of all the beverages, tea and coffee are the most widely consumed drinks by people all over the world. These beverages are taken mainly as hot drinks for their stimulating effect. They help to get over a tired feeling and one feels refreshed after drinking. This reputation leads to tea and coffee drinking habits which later become deep-rooted.

The rapid spread of tea and coffee is a striking example of the manner in which commercial forces cultivate poison habits in man for profit. It is believed that almost a billion cups of tea are consumed daily all over the world. In India, even slogans like **Roz Chai Piyo, Bahut Din Jiyo** were invented by the vested interests to mislead common people to believe that tea gives strength and vitality.

Tea

Tea is prepared from the leaves of an evergreen shrub belonging to Camellia family. The plant is native to South East Asia. In ancient times, the leaves were

probably eaten or boiled into a beverage. The earliest record of its cultivation comes from China in the fourth century A.D. By the eighth century, it was quite popular in China and established in Japan. Over the next 600 years or so, the method of infusing tea in water slowly evolved.

Tea was introduced into Europe in the 17th century and was at first a great luxury. After the discovery that tea could be grown easily on large estates in Sri Lanka and India, enormous quantities were imported into Great Britain, where for nearly a century and a half it has been a cheap and popular beverage. However, it was not a popular drink in India even as late as 1940.

The Second World War brought about a sharp rise in the prices of commodities all over the world, including India, owing to scarcity of food. As a result, the common people could not afford milk in adequate quantities due to six-fold increases in its price. Deprived of this nutritious food, they turned to tea as a substitute.

To ascertain the effect of tea on health, it is essential to know the chemical composition of tea leaves. On an average, they contain moisture (5 to 8 per cent), aromatic oils (0.5 per cent), caffeine (2.5 to 5 per cent), nitrogen (4.75 to 5.5 per cent), soluble matter (38 to 45 per cent), tannin (7 to 14 per cent) and minerals (5 to 5.75 per cent).

Of these ingredients, the most important are the alkaloids caffeine, tannin and a small proportion of an aromatic oil. The chief effects of tea are due to these ingredients. It is well known that Indian tea is richer in all these chief ingredients than the Chinese variety.

It is not the composition of leaves alone that affects the health but also the composition of infusion which is prepared by boiling tea with water. It is noted

that caffeine comes out more rapidly than tannin and hence the greater the period of infusion, the more is the amount of tannin, while the amount of caffeine will remain almost the same.

It will be seen from the composition of tea leaves that tea cannot be regarded as a food and whatever little nutritional value it has is due to milk and sugar which are added to it.

The use of tea is detrimental to health. Dr. P. C. Roy, father of modem chemistry in India, equated tea with poison. Tea is said to slow down digestion. Its daily intake causes indigestion as it impedes the action of ‘ptyalin’, a digestive ferment of saliva which acts on cooked starch. The inhibition of saliva seems to be due to tannin. The effect disappears if the milk is added to it, as the protein of milk precipitates the tannin. Tea is also said to delay stomach digestion. It can lead to gas formation, diarrhoea and constipation.

A definite effect of caffeine is dieresis. Experiments show that caffeine in five cups of tea increases the urine by 400 to 500 per cent. This continued stimulation of kidneys by caffeine may damage them.

The stimulating and restorative effects of tea are due to the action of caffeine on the nervous system. It affects the higher cerebral or psychic centres more than centres located in medulla and spinal cord. This results in heightening of intellectual faculties, relieving a feeling of fatigue and increasing the capacity for physical and mental work.

The respiratory and cardiac centres are also stimulated by caffeine as coronary arteries get dilated resulting in increase in the rate of blood flow. It is also said to increase the blood sugar level. The quickening of respiration lowers the level of carbon dioxide and increases the heat production of the body by 10 to 20 per

cent.

It is thus clear that tea, if taken in excess, causes indigestion, over-excitability of the nervous system, irritability, palpitation and sometimes prostration. To minimize the harmful effects of tea, it should be infused by pouring water brought to the boil instantly over the leaves and the tea allowed to draw for about four to five minutes, then the liquid should be poured into another pot. Mint and lemon grass should be added. This will help in stomach disorders like flatulence, and supply vitamins.

Coffee

Coffee beans are the seeds of coffee trees that are widely cultivated in the tropics. There are a variety of coffee trees. Most of them are 10 to 15 ft. high, with evergreen leaves. Shade trees are necessary to protect them from excessive sun. They bear clusters of white flowers which develop into the beans. There are large plantations in India, Indonesia, Africa and Brazil.

Coffee is a native of Africa, where it has been cultivated for ages on the slopes of Abyssinia facing the Red Sea. The coffee tree crossed the sea and found its way into Arabia in the 15th century. The world derives its famous Mocha coffee from there.

Coffee drinking spread very rapidly in the East but entered Europe more slowly. It was imported into England in about 1652. But is was not until the 18th century that coffee drinking was generally adopted. It is, however, about two centuries, since it became an article of general consumption by the people of Europe. In the United states, about 96 per cent of the families drink coffee daily.

Coffee is even more injurious to health than tea. It is a more stimulating

beverage than tea, as it contains greater amount of the active alkaloid principle, caffeine. This alkaloid is habit-forming and can be fatal to both man and animal. Sir Robert Hutchison, an eminent nutritionist, found about 100 mg. of caffeine and 200 mg. of tannin in a cupful of coffee, made by infusing 60 g. in 450 ml. of water.

Research studies have shown that coffee drinking has potential health hazards. They have linked it to heart disease, cancer and even birth defects. The most common side-effects of coffee are nervousness, irritability, heart palpitation and insomnia.

Coffee drinking can also cause diarrhoea, headache and heartburn. In some people, coffee acts as a diuretic and they may have enormous increase in urine output. Some people experience a post-stimulation letdown that can make them as tired and lethargic as they were alert and energetic immediately after drinking.

The most recent study on role of coffee in heart disease, done at Stanford University, found that sedentary man between 30 and 55, who drink three cups of coffee or more a day may be at higher risk of developing heart disease than those who drink less coffee. There is some indication that heavy coffee consumption, when accompanied by other diet and lifestyle factors, may increase cholesterol levels.

Coffee should be completely given up by those suffering from peptic ulcers, heartburn and other gastro-intestinal disorders such as esophageal reflux, as it promotes gastric-acid secretion. People with hypertension, heart disease and anaemia should also avoid coffee. It inhibits the absorption of iron. Researchers at Yale University recently found that caffeine produces a more pronounced reaction in people who have panic episodes than in normal healthy people.

There are also several studies that indicate a link between coffee-tea drinking and fibrocystic breast disease, a condition characterised by benign breast lumps. Women with these conditions should therefore refrain from drinking these beverages.

To reduce the adverse effects of coffee on health, it should be made by the filter or percolator. Methods have been devised to remove most of the caffeine from coffee, making it caffeineless coffee. Coffee substitutes are made from roasted cereals. They resemble coffee in the bitter taste in aroma. Cereal coffee varieties are wholesome and are used extensively by healthy-minded people and by those desirous of breaking the coffee habit.

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CHAPTER 7

EXERCISE AND YOGA CAN RETARD AGEING PROCESS

Exercise plays an important role in maintaining good health and in preventing the ageing process. According to the Journal of American Geriatrics. “If an inactive 70-year-old were to begin an exercise programme of ‘moderate activity’, the result would be a gain of 15 years.... If the subject were to achieve the ‘athlete’ level of conditioning, there would be a potential improvement of 40 years!”

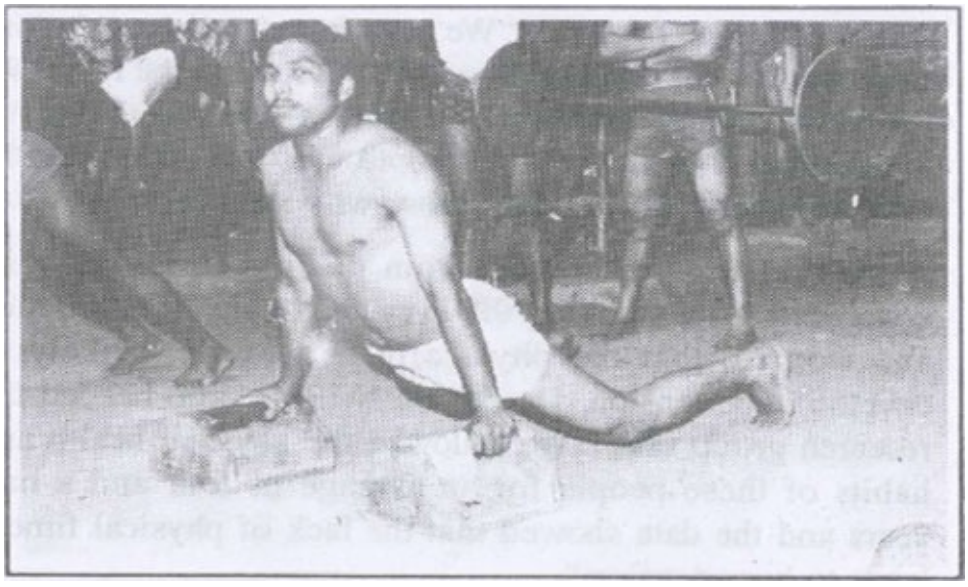
Medical researchers at Harvard and Stanford Universities, who studied the habits and health of 17,000 middle-aged and older men, also reported the first scientific evidence that even modest exercise helps prolong life. Dr. Ralph S.R Paffenabarger, the visiting professor of epidemiology at the Harvard School of Public Health, who is the principal author of the report, said, “We have found a direct relationship between the level of physical activity and the length of life in the college men we have studied. He added, “this is the first good evidence that people who are active and fit have a longer life span than those who are not”.

A parallel research report from doctors in Dulles also concluded, after studying the lives and habits of 6,000 men and women, that the physically fit were less likely to develop hypertension. Dr. Steven N. Blair who headed the research group said, “We followed the physical health and habits of these people for an average of four and a half years and the data showed that the lack of physical

fitness leads to hypertension.”

Systematic physical exercise relaxes and softens contracted muscles, ligaments and other tissues and tones up those which are weakened. It promotes blood circulation, expands the lungs, thereby increasing the intake of oxygen, stimulates the appetite and helps in the elimination of waste and morbid matter through the skin, lungs, kidneys and bowels. It also promotes physical strength and mental vigour and strengthens will power and self control, leading to a harmonious development of the whole system.

Exercise increases calorie output. The body fat can be reduced by regular exercise. It is, therefore,- useful for weight reduction in conjunction with restricted food intake. According to a study by Dr. Peter Wood of Stanford University Medical School, the author of ‘California Diet and Exercise Programme’, very active people eat about 600 more calories daily than their sedentary counterparts but weigh about 20 per cent less. Up to 15 hours after vigorous exercise, the body continues to burn calorie at a higher rate than it would have without exercise. Moderate physical exercise has been found to be accompanied by less obesity and lower cholesterol levels.



Exercise promotes harmonious development of the whole system

Exercise promotes harmonious development of the whole system.

Regular exercise plays an important role in the fight against stress by providing recreation and mental relaxation, besides keeping the body physically and mentally fit. It is nature's best tranquiliser.

The proper distribution of nutrients to all parts of the body is closely linked with the exercising of those parts. If any part of the body is allowed to remain idle, it will become weak and defective. Indeed, the joint action of all parts of the body is vital for circulation and the optimum physical functioning. Exercise, besides being one of the most powerful factors in preventing disabilities of later age, is also an important form of therapy for repairing the damage caused by various ailments. It also reduces the risk for all types of cancer by significantly boosting the body's internal defences against free radicals.

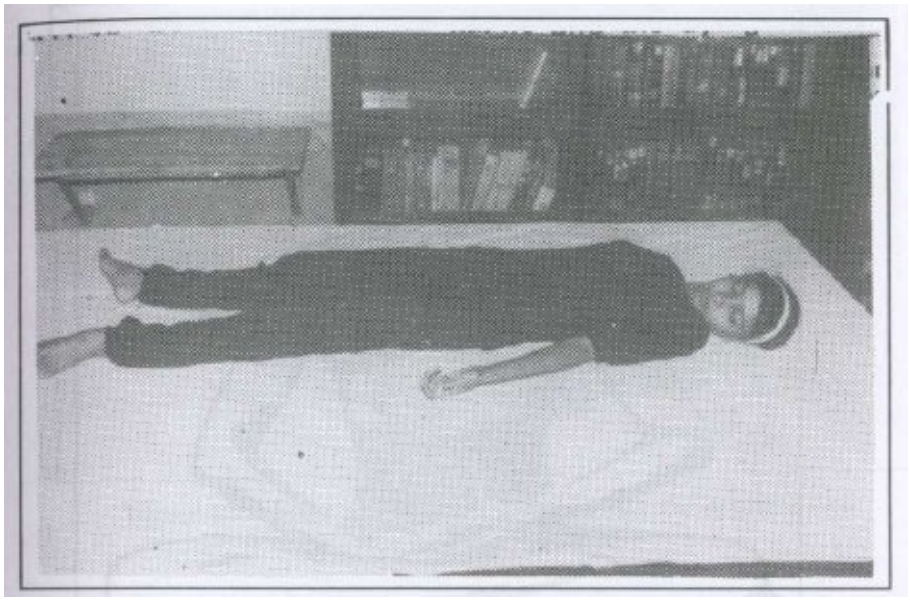
Several systems of exercise have been developed over the years. The most popular among them are Swedish system and yogasanas. Whichever system one chooses to adopt, the exercises should be performed systematically, regularly and under proper guidance. To be really useful, exercise should be taken in such a manner as to bring into action all the muscles of the body in a natural way. Walking is one such exercise. It can help reduce weight, give more energy and tone up flabby muscles. It can help prevent heart disease, alleviate mental depression and ease some of the pain of arthritis as well as reverse some of the physical aspects of ageing. Walking is, however, so gentle in character that one must walk several kilometres in brisk manner to constitute a fair amount of exercise. Other forms of good exercise are swimming, bicycling, horse-riding and playing tennis.

Yoga

Yoga is an ancient system of discipline practised in India. It aims at entire well-being of man Basically, human evolution takes place on three different planes, namely physical, mental and spiritual. Yoga is a means of attaining perfect health by maintaining harmony and achieving optimum functioning on all three levels through complete self control. The practice of yoga asanas leads to a well-balanced personality. It improves circulation and energies and stimulates major endocrine glands of the body.

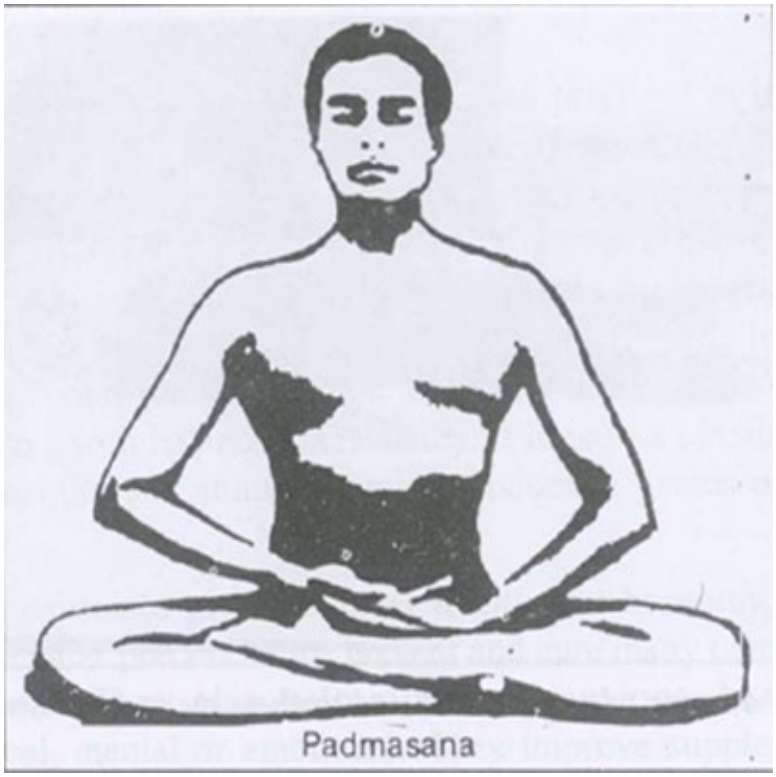
Yogic exercises promote inner health and harmony, and their regular practice helps prevent and cure many common ailments. They also help eliminate tensions, be they physical, mental or emotional. They improve suppleness, grace and posture and keep the spine flexible. They are said to improve appearance and delay old age.

Yoga asanas should be practised only after mastering the techniques with the help of a competent teacher. Asanas should be performed at a leisurely slow-motion pace, maintaining poise and balance. Some of the more important, useful and easy-to-practise asanas which contribute to good health and youthful appearance are described herein in brief:



Shavasana relax the mind and soothens the nervous system.

1. **Shavasana** (Dead body pose): Lie flat on your back, feet comfortably apart, arms and hands extended about six inches from the body, palms upwards and fingers half-folded. Close your eyes. Begin by consciously and gradually relaxing every part and each muscle of the body: feet, legs, calves, knees, thighs, abdomen, hips, back, hands, arms, chest, shoulders, neck, head and face. Relax yourself completely feeling as if your whole body is lifeless. Now concentrate your mind on breathing rhythmically as slowly and effortlessly as possible. This creates a state of complete relaxation. Remain motionless in this position, relinquishing all responsibilities and worries for 10 to 15 minutes. Discontinue the exercise when your legs grow numb. This asana relaxes the mind and soothens the nervous system. It should be performed both at the beginning and at the end of the daily round of yogic asanas.

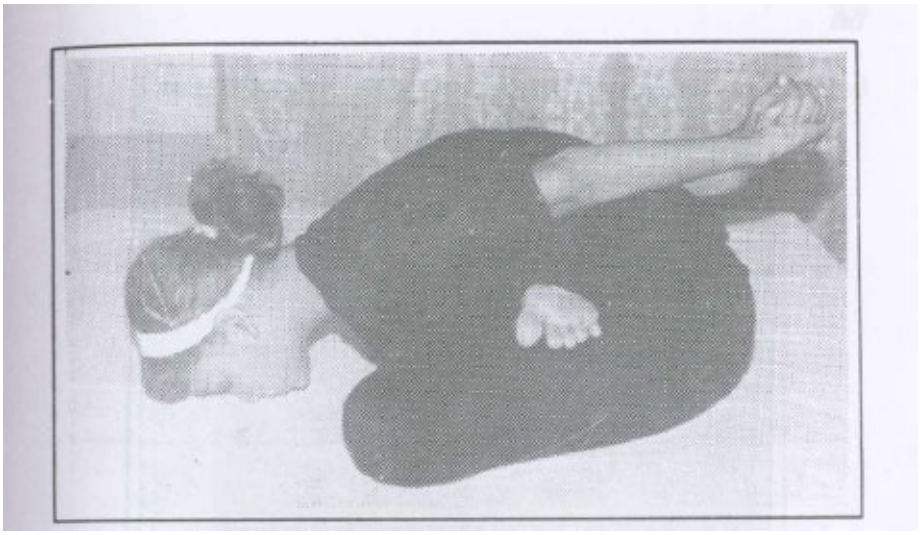


Padmasana calms and refreshes the mind.

2. **Padmasana:** Sit erect and stretch your legs out in front of you. Bend one

leg to place the foot on the thigh of the other, the sole facing upwards. Similarly, bend the other leg too, so that heels are opposite each other and placed in such a way that they press down on the other side of the groin. Keep your neck, head and spine straight. Place your palms one upon the other, both turned upward and cupped, and rest them on the upturned heels a little below the navel.

Padmasana is good for doing pranayama and meditation. It helps in the treatment of many heart and lung diseases and digestive disorders. It also calms and refreshes mind.

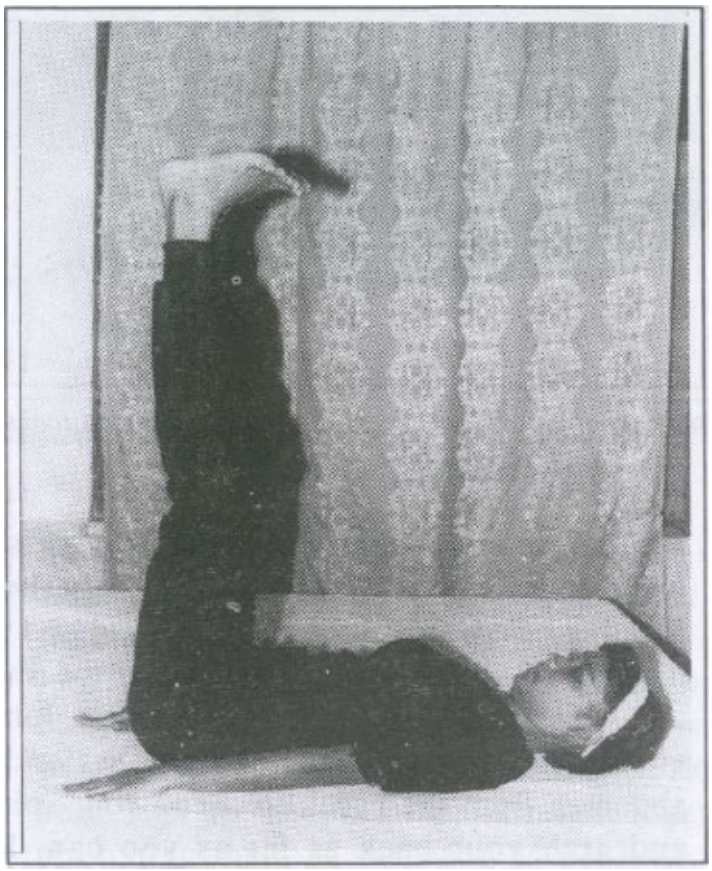


Yogamudra helps pep up digestion, boosts the appetite and removes constipation.

3. **Yogamudra:** Sit erect in padmasana. Fold your hands behind your back, holding your left wrist with the right hand. Take a deep breath. While exhaling, bend forward slowly keeping your hands on your back. Bring your face downwards until your nose and forehead touch the floor. While inhaling, slowly rise back to the upright position. The practice of this asana tones up the nervous system, builds up powerful abdominal muscles and strengthens the pelvic organs. It helps pep up digestion, boosts the appetite and cures constipation.

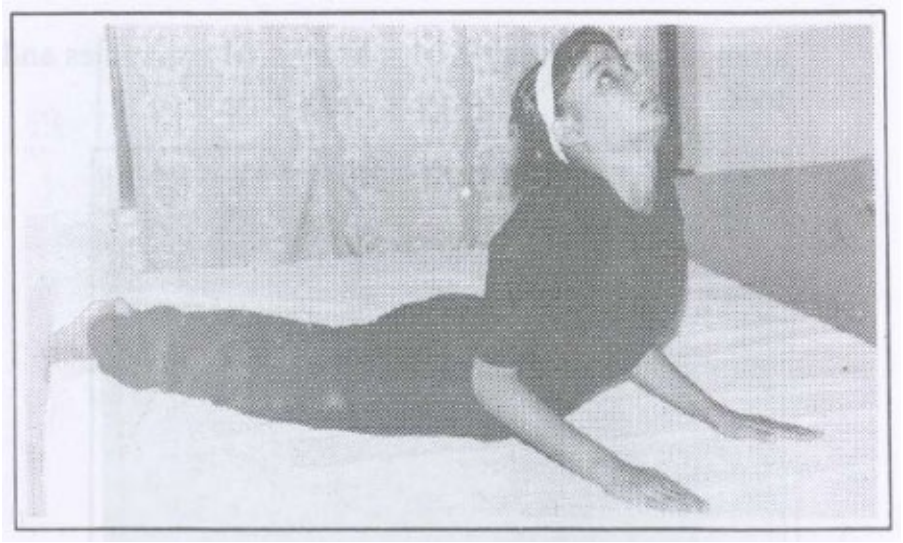
Vajrasana improves digestion and is beneficial in case of stiffness of the legs.

4. **Vajrasana** (Pelvic pose): Sit erect and stretch out your legs. Fold your legs back, placing feet on the sides of the buttocks with the soles facing back and upwards. Rest your buttocks on the floor between your heels. The toes of both feet should touch. Now, place your hands on your knees and keep the spine, neck and head straight. This asana can be performed even after meals. It improves the digestion and is beneficial in cases of dyspepsia, constipation, colitis, seminal weakness and stiffness of the legs. It strengthens the hips, thighs, knees, calves, ankles and toes.



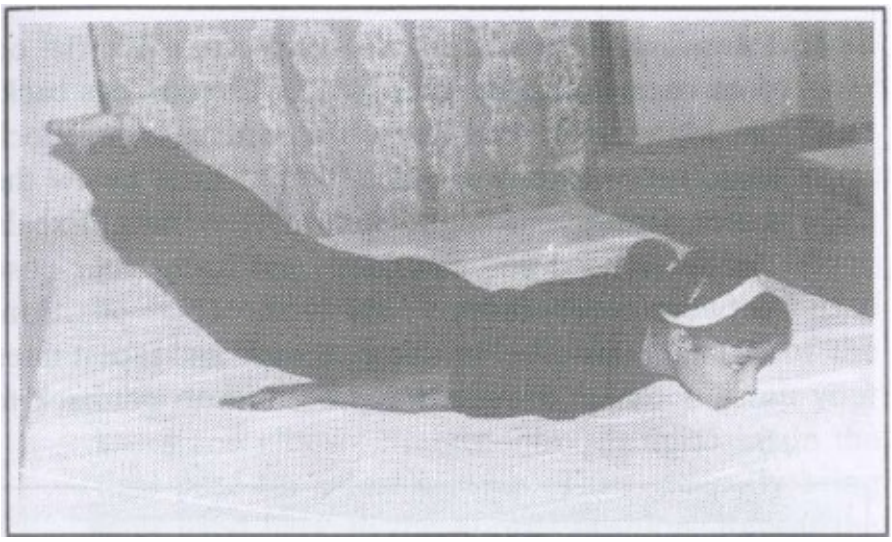
Uttanpadasana strengthens the abdominal muscles and intestinal organs.

5. **Uttanpadasana** (Leg-lifting pose): Lie on your back with leg and arms straight, feet together, palms facing downwards, on the floor close to the body. Raise your legs about two feet from the floor without bending your knees. Maintain this pose for some time. Then, lower your legs slowly without bending the knees. This asana is helpful for those suffering from constipation. It strengthens the abdominal muscles and intestinal organs.



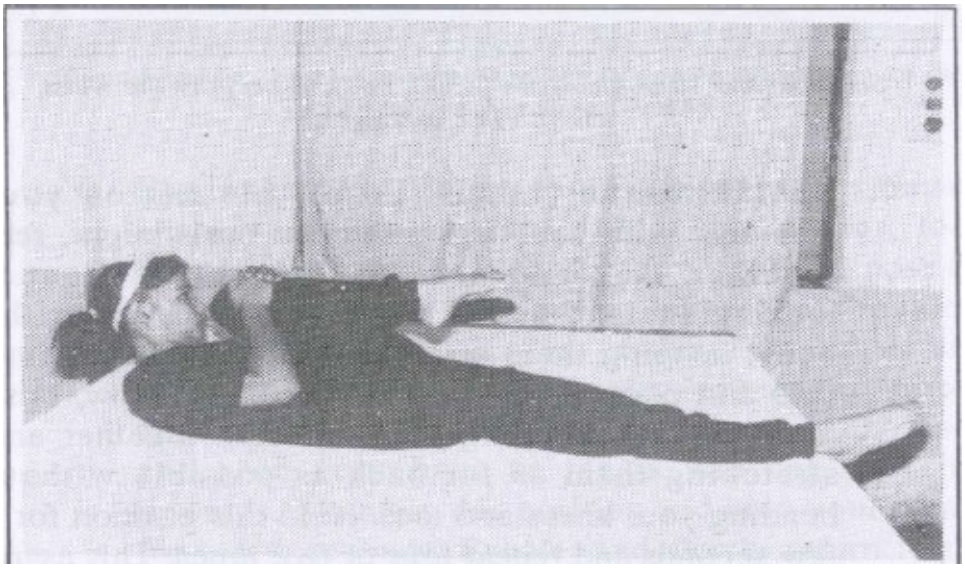
Bhujangasana removes weakness of the abdomen and tones up the reproductive system in women.

6. **Bhujangasana** (Cobra pose): Lie on your stomach with your legs straight and feet together, toes pointing backwards. Rest your forehead and nose on the ground. Place your palms below the shoulders and your arms by the sides of the chest. Inhale and slowly raise your head, neck, chest and upper abdomen from the navel up. Bend your spine back and arch your back as far as you can, looking upwards. Maintain this position and hold your breath for a few seconds. Exhale, and slowly return to the original position. This asana removes weakness of the abdomen and tones up the reproductive system in women. It exercises the vertebra, back muscles and the spine.



Shalabasana strengthens the whole body; especially the waist, chest, back and neck

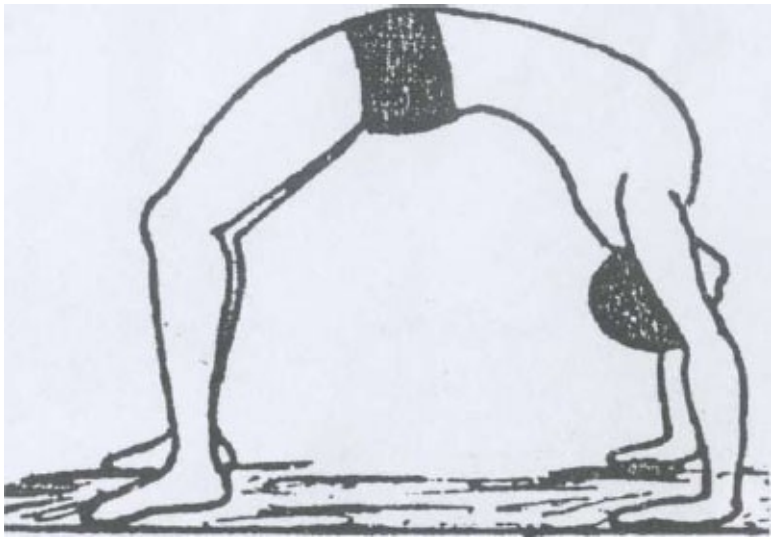
7. **Shalabhasana** (Locust pose): Lie flat on your stomach, with your legs stretched out straight, feet together, chin and nose resting on the ground, looking straight ahead. Move your arms under the body, keeping them straight, fold your hands into fists and place them close to the thighs. Now, raise your legs up, keeping them straight together and stretching them as far back as possible without bending your knees and toes. Hold this position for a few seconds and repeat four or five times. This asana strengthens the whole body, especially the waist, chest, back and neck.
8. **Pawanmuktasana** (Gas-releasing pose): Lie flat on your back, hands by your side. Fold your legs back, placing your feet flat on the floor; make a fingerlock with your hands and place them a little below the knees. Bring your thighs up near your chest. Exhale and raise head and shoulders and bring your nose between your knees. This is the final position. Maintain this pose for a few seconds and repeat three to five times. Reverse the procedure to get back to the original position.



Pavanmuktasana relieves excessive gas from the abdomen and relieves flatulence.

This asana strengthens the abdominal muscles and internal abdominal organs like the liver, spleen, pancreas and stomach. It helps release excessive gas from the abdomen and relieves flatulence. Persons suffering from constipation should do this exercise in the morning, after drinking lukewarm water to help proper evacuation of the bowels.

9. **Chakrasana** (Lateral bending pose): Stand straight with your feet and toes together and arms by your sides, palms facing and touching the thighs. Raise one arm laterally above the head with the palm inwards up to shoulder level and palm upwards when the arm rises above the level of your head. Then, bend your trunk and head sideways with the raised arm touching the ear, and sliding the palm of the other hand downwards toward the knee. Keep your knees and elbows straight throughout. Maintain the final pose for a few seconds. Then gradually bring your hand back to the normal position. Repeat the exercise on the other side. This asana induces maximum stretching of the lateral muscles of the body, especially the abdomen. It strengthens the knees, arms and shoulders and increases lung capacity.

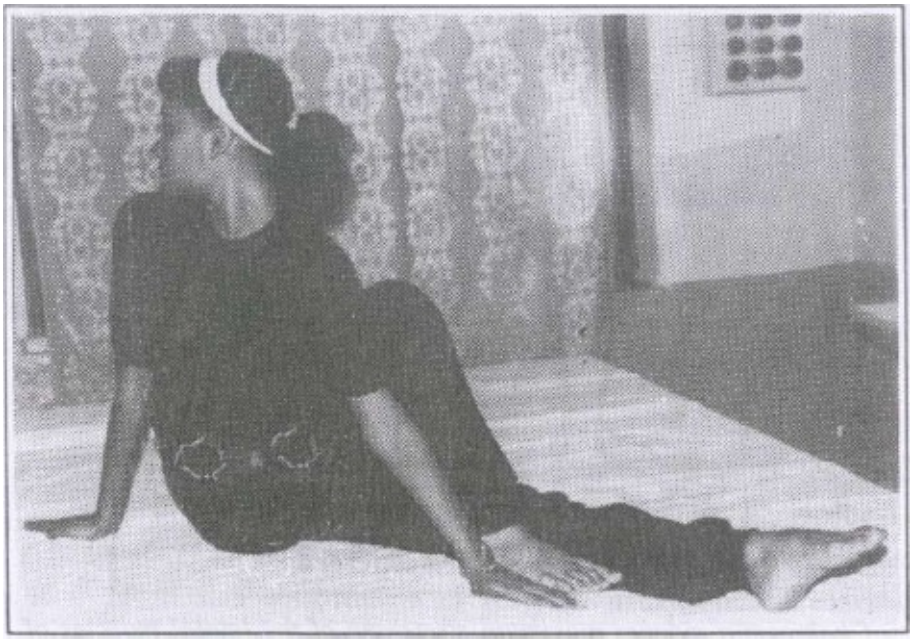


Chakrasana

Chakrasana induces maximum stretching of the lateral muscles of the body, especially the abdomen.

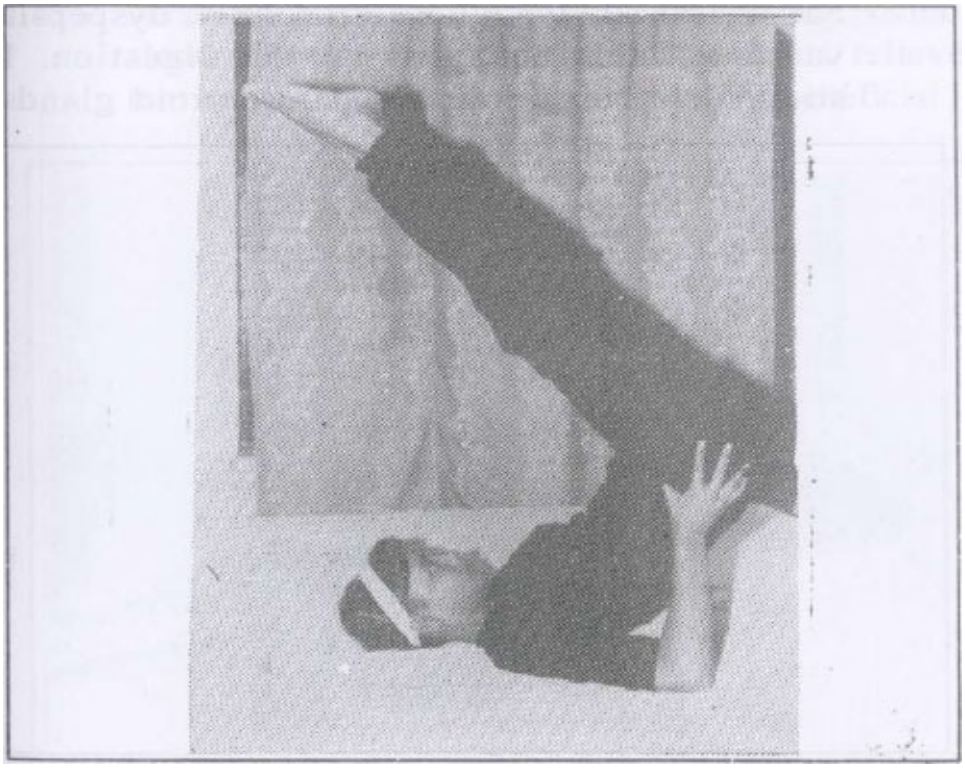
10. **Vakrasana:** Sit erect and stretch legs out. Raise your right knee until your foot rests by the side of the left knee. Place your right hand behind your back without twisting the trunk too much. Then bring your left arm from in front of you over the right knee. Place your left palm on the ground near the heel of your right foot. Push your right knee as far to the left as possible, offering a little resistance to the left arm. Twist your trunk to the right as much as possible. Turn over face to the right over the right shoulder. Release and repeat on the left side.

    This asana tones up the spinal and abdominal muscles and nerves and activates the kidneys, intestines, stomach, adrenaline and gonad glands. It relieves cases of constipation and dyspepsia.



Vakrasana tones up the spinal muscles and nerves.

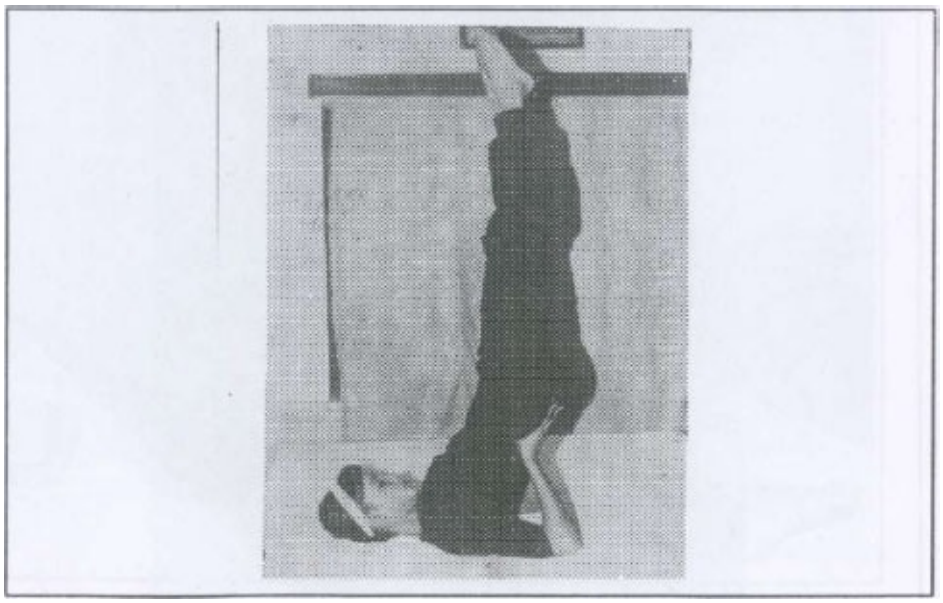
11. **Vipareetakarani** (Inverted action pose): Lie flat on your back, with your feet together and arms by your side. Press your palms down, raising your legs to a perpendicular position without bending the knees. Your palms should touch the waist. Then straighten your legs. The trunk should not make a right angle with the ground but simply an upward slanting position. The chest should not press against the chin but be kept a little away. To return to the ground, bring your legs down slowly, evenly balancing your weight. Through this asana, the muscles of the neck become stronger and blood circulation is improved. The functioning of the cervical nerves, ganglia and the thyroid also gets improved.



Vipareetakarani strengthens the muscles of the neck and improves blood circulation.

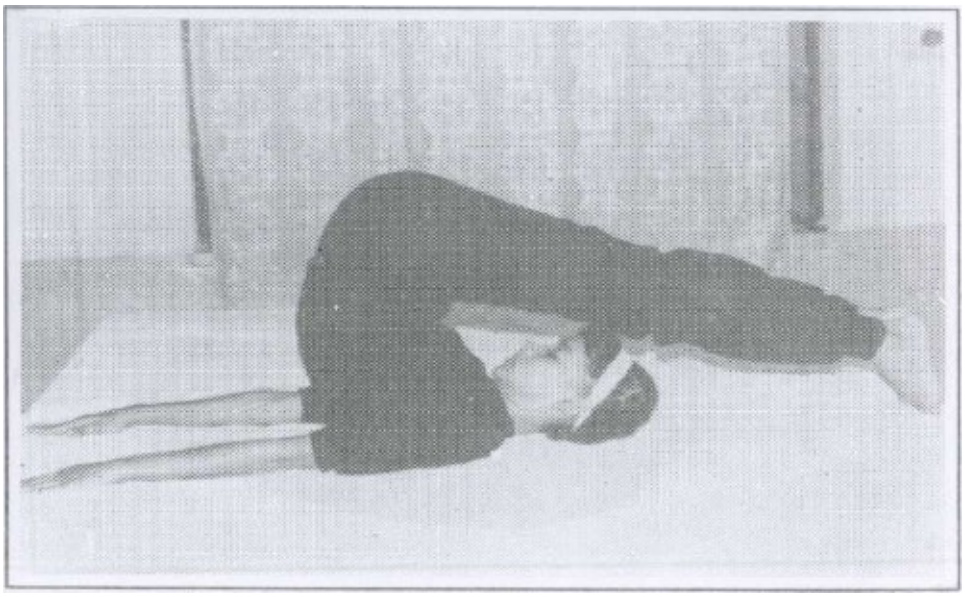
12. **Sarvagasana** (Shoulder stand pose): Lie flat on your back with your arms by the side, palms turned down. Bring your legs up slowly to a 90° angle and then raise the rest of the body by pushing the legs up and resting their weight on the arms. Fix your chin in Jugular Notch, and use your arms and hands to support the body at the hip region. The weight of the body should rest on your head, back and shoulders, your arms being used merely for balance. The body, legs, hips and trunk should be kept as vertical as possible. Focus your eyes on your big toes. Press your chin against your chest. Hold the pose for one to three minutes. Return to the starting position slowly reversing the procedure.

    Sarvagasana helps relieve bronchitis, dyspepsia, varicose veins and peps up the digestion. It stimulates the thyroid and para-thyroid glands, influences the brain, heart and lungs. This asana should not be done by those suffering from high blood pressure, heart disease and eye troubles.



Sarvangasana relieves bronchitis, dyspepsia, varicose veins and peps the digestion.

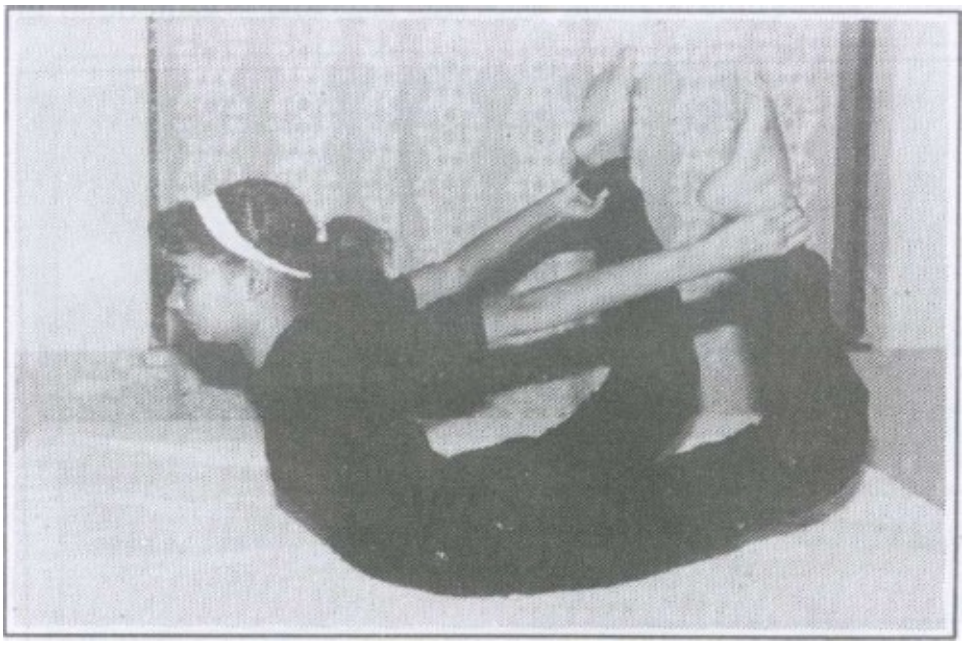
13. **Halasana** (Plough pose): Lie flat on your back with legs and feet together, arms by your side with fists closed near your thigh. Keeping your legs straight, slowly raise them to angles of 30°, 60° and 90° pausing slightly at each point. Gradually, raise your legs above your head without bending your knees and then move them behind until they touch the floor. Stretch your legs as far as possible so that your chin presses tightly against the chest while your arms remain on the floor as in the original position. Hold the pose from between 10 seconds to three minutes, breathing normally. To return to the starting position slowly reverse the procedure. This asana relieves tension in the back, neck and legs and is beneficial in the treatment of lumbago, spinal rigidity and rheumatism, myalgia, arthritis, sciatica and asthma.



Halasana relieves tension in the back, neck and legs.

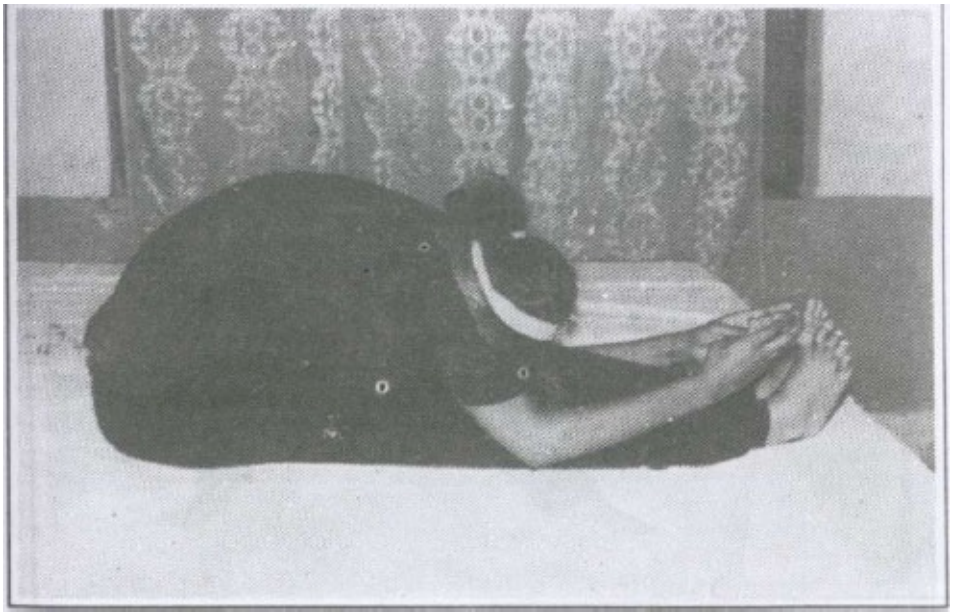
14. **Dhanurasana** (Bow pose): Lie on your stomach with your chin resting on the ground, arms extended alongside the body with the legs straight. Bend your legs back towards the hips, bring them forward and grasp your ankles. Inhale and raise your thighs, chest and head at the same time. Keep your hands straight. The weight of the body should rest mainly on the navel region. Therefore, arch your spine as much as possible. Exhale and return slowly to the starting position, by reversing the procedure.

    Dhanurasana provides good exercise for the arms, shoulders, legs, ankles, back and neck. It also strengthens the spine. It relieves flatulence and constipation and improves the functioning of the pancreas and the intestines. It should not be done by those with a weak heart, high blood pressure and ulcers of the stomach and bowels.



Dhanurasana provides good exercise for the arms, shoulders, legs ,,ankles, back and neck.

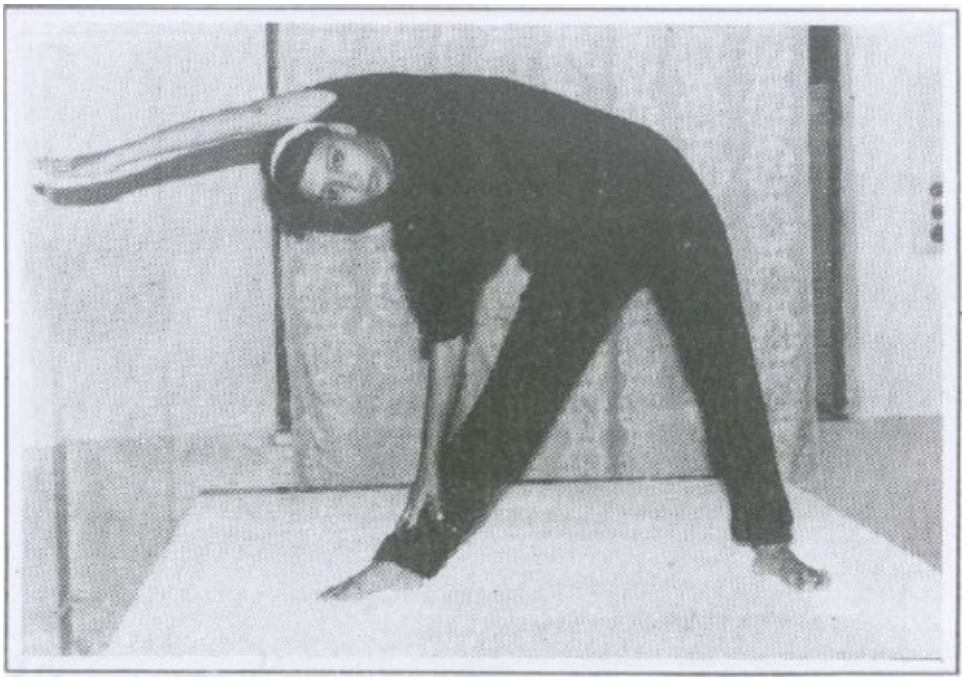
15. **Paschimottanasana** (Posterior stretching pose): Sit erect. Stretch your legs out in front of you, keeping them close to each other. Bend your trunk and head forward from the waist without bending your knees and grasp the big toes with your fingers. Holding your toes, and without bending your knees, rest your forehead on your knees. With practice, the tense muscles become supple enough for this exercise. Old persons and persons whose spine is still should do this asana slowly in the initial stages. The final pose need be maintained only for a few seconds. Return to the starting position gradually.



Paschimottanasana is beneficial in the treatment of constipation, dyspepsia and other abdominal disorders.

Paschimottanasana is a good stretching exercise in which the posterior muscles get stretched and relaxed. It relieves sciatica, muscular rheumatism of the back, backache, lumbago and asthmatic attacks. It relieves one of constipation, dyspepsia and other abdominal disorders.

16. **Trikonasana** (Triangle pose): Stand erect with your legs apart. Stretch your arms up to shoulder level. Bend your trunk forwards and twist to the left, looking upwards and keeping your left arm forwards and raised at an angle of 90. Place your right palm on your left foot without bending the knees. Maintain this pose for a few seconds. Then straighten up and return to the normal position. Repeat the procedure on the other side. Trikonasana is an all-round stretching exercise. It keeps the spinal column flexible and reduces the fat on the lateral side of the body. Besides, it stimulates the adrenal glands and tones up the abdominal and pelvic organs.



Trikonasana stimulates the adernal glands and tones up the abdominal and pelvic organs.

Yoga asanas should be practised on empty stomach. Morning is the best period. The place should be airy and open. All asanas should be performed on a clean mat, a carpet or a blanket covered with a cotton sheet. Clothing should be light and loose-fitting to allow free movements of the limbs. The mind should be kept off all disturbances and tensions. Regularity and punctuality in practising yogic exercises is essential.

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CHAPTER 8

IMPORTANCE OF REST, RELAXATION AND MEDITATION IN OLD AGE

Physical and mental rest, adequate sleep, relaxation and meditation are as important as exercise in slowing the ageing process. Rest means the absence of effort. It aims at counterbalancing work in a physiological sense. Relaxation is rest after effort or conscious rest after conscious effort.

Meditation is a simple and effective self-treatment of depression. It helps to eliminate negative thoughts, conflicts

Meditation is a simple and effective self-treatment of depression It helps to eliminate emotional conflict, inner discord and psychological tension in old age.

Sleep is a periodic rest of the body which is absolutely essential for its efficient functioning. It has been called “most cheering restorative of tired bodies”. It is the indispensable condition to the recuperation of energy. A person goes to bed fatigued and gets up refreshed. Sleep repairs the wear and tear of the body and mind incurred during waking hours. Nothing is so restorative to the nerves as sound and uninterrupted sleep.

Two-thirds of the total weight of the body consists of the life-giving element, oxygen. Work consumes oxygen and reduces the body’s store of this wonderful element. As the oxygen diminishes, the vital activities wane. Tissue waste, the consumption of the entire physical structure, from brain to cuticle, takes place during working hours. Sleep is the only time, when reparative processes, which may overcome all this waste, can occur. Studies have shown that the average amount of sleep needed to feel well rested is seven and a half hours. However, individual needs may vary from six to nine hours.

Loss of sleep exerts seriously detrimental effects upon the nervous system. Long periods of wakefulness may cause profound psychological changes such as loss of memory, irritability, hallucination, even schizophrenic manifestations.

Unpleasant situation at bed time such as arguments, quarrels, watching a horror movie, listening to loud music, which would create anxiety, fear, excitement and worries, should be avoided. Such situation stimulate the cerebral cortex and tend to keep one awake. The sleeping place should be well ventilated, with balanced temperature and free from noises. The bed should be neither too hard, nor too soft, but comfortable. The pillow should not be too hard or too high. The bed clothes should be loose-fitting and light coloured. Another important rule is not to eat heavy food shortly before bed time.

It is essential for the elderly to learn how to relax physically and mentally. In relaxation, the muscles work more efficiently. Fatigue is also completely relieved in a very short time as the venous blood circulation is promoted throughout the body. The best method of relaxation is to practise savasana or ‘The dead pose’. The procedure for practising this asana has been explained in the previous chapter.

Another method of relaxation, mentioned by Indira Devi in her book ‘Forever Young, Forever Healthy’, is as follows: Lie down on a carpet and stretch. Stretch your arms way back over your head and stretch your legs, making the whole body as stiff as you can. Then abruptly drop your hands down alongside of you and relax the whole body. With eyes closed, concentrate first on the tip of your toes and try to relax them. Imagine that your feet, legs and thighs are being gradually plunged into pleasantly warm water and all the muscles are becoming relaxed. Next, relax your back, spine and shoulders; then your arms, hands and finger-tips. Let your chin drop so that the muscles of your face relax as well. And, now, imagine that your body is getting heavier and heavier so heavy that it sinks into the carpet and you no longer feel its weight. Remain like this for a few minutes completely relaxed and completely at ease.

Now visualise yourself as a cloud — very light and carefree just floating in the vast blue sky. After a while, dismiss this vision. Then try to keep your mind as blank as possible. Imagine yourself sinking into complete oblivion. You are now relaxed, and feel like a light cloud floating in the sky. Before getting up, stretch and yawn.

Older people should learn to avoid nerve tensions. Whenever you have a chance during the day, arrange to sit quietly and relax every muscle of your body. If you are alone, you can keep your eyes closed and think about the omnipresence and omnipotence of the creator, and try to feel your inner mind merging or uniting

with the all-pervading divine mind essence.

The older people should also meditate frequently and they should explore and develop their spiritual interests. The state of meditation or **dhyana** is achieved when the mind is trained to concentrate on an outer or inner object, long enough for all distractions to be eliminated, and when the stream of thoughts flows in a single direction without interruption. The body is silently resting in this state. The only sign of life is breathing. The hypothalamus recharges its energy during meditation.

Meditation helps eliminate emotional conflict, inner discord and psychological tension. It completely purifies the mind and frees it from unconscious obstructions. The most common method consists in concentrating one's attention on an object of personal value or a universal symbol.

Each person, according to his faith, usually chooses an elevated thought or spiritual symbol upon which he prefers to meditate.

It is essential to adopt a comfortable and firm posture, otherwise meditation will not be possible. To adopt a firm posture means to hold oneself in such a way that one is conscious of the body. The slightest discomfort in such a posture will prove a constant distraction to the mind; one should therefore choose the position that allows one to remain still for a long time without feeling discomfort. The spine and head should be kept very straight, but without being strained. Padmasana is considered to be the ideal posture for practising meditation. The procedure for this asana has been explained in the previous chapter.

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CHAPTER 9

WEIGHT CONTROL FOR HEALTHY OLD AGE

Proper weight control is of utmost importance in old age. It is seen that obesity is one of the most common nutritional disorders in the elderly. It has in general grown proportionate to the growth of junk foods. Obesity may be described as a bodily condition characterised by excessive deposition or storage of fat in adipose tissue. It usually results from consumption of food in excess of physiological needs. Some gain in fat is expected as we age. About one kg. of weight gain every decade after the age of 30 is considered reasonable. Excess weight gain, however, is a cause for great concern in old age.

Obesity is generally assessed by relating patients' weight to charts of standard weight prevailing in different parts of the world. They are then categorised 10, 20 or 30 per cent overweight. Gross obesity is, however, uncommon in the elderly because persons who are morbidly obese are more likely to die earlier due to complications of their obesity.

Obesity is a serious health hazard as the extra fat puts a strain on the heart, kidneys and liver as well as the large weight-bearing joints such as the hips, knees and ankles, which ultimately shortens the life span. It has been aptly said, 'the longer the belt, the shorter the life.' Overweight elderly persons are susceptible to several diseases like accidents, coronary thrombosis, heart failure, high blood pressure, diabetes, arthritis, gout, varicose veins and liver and gall-

bladder disorders.

There are certain distinguishing features of obesity in the elderly. The most important is the sex difference. Obesity, particularly the severe type, is mostly confined to the female. This is because it is responsible for increased mortality in the elderly male and hence the lower prevalence in them. Another important feature of obesity in the elderly is that it rarely occurs for the first time in older persons. Hence, obese older persons usually suffer from this disease from an earlier age.

Osteoarthritis of the major weight-bearing joints (hips, knees) is an inevitable result of long-standing obesity. This severely restricts the already impaired mobility of older patients. Energy expenditure is reduced and the disease becomes severe.

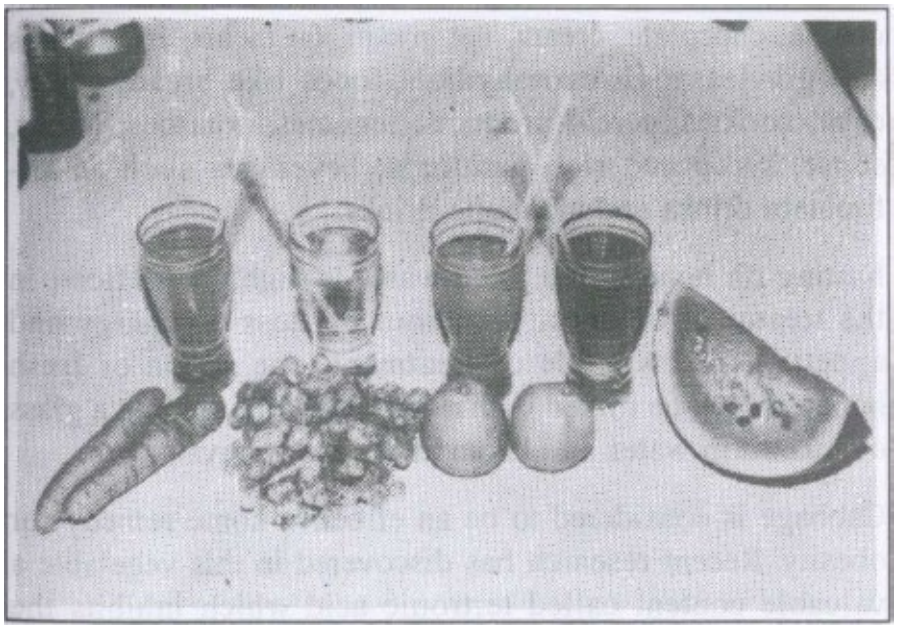
Chronic pains may lead to ingestion of large amounts of analgesic which can result in significant gastro-intestinal blood loss and the development of iron-deficiency anaemia.

The main cause of obesity, most often, is overeating, that is, the intake of calories beyond the body's energy requirement. Recent studies have, however, shown that reduced physical activity is also a major functional abnormality in obese persons. There has also been in recent times, an increasing awareness of psychological aspects of obesity. Older persons who are generally bored, unhappy, lonely or unloved, those who are discontented with their families, or social or financial standing, usually tend to overeat as eating is a pleasure and solace to them.

Treatment

Many strategies for losing weight have been planned and tried over years because, as a rule, losing weight and keeping the weight off are extremely difficult. This is particularly true for those, individuals who are 25% or more overweight.

A suitably planned course of dietary treatment, in conjunction with suitable exercise and other measures for promoting elimination, is the only scientific way of dealing with obesity. The chief consideration in this treatment should be the balanced selection of foods which provide the maximum essential nutrients with the least number of calories, ranging from 1,100 to 1,200.



Liberal intake of fruit juices help reduce weight.

To begin with, the patient should undertake a juice fast for seven to 10 days. Juices of lemon, grapefruit, orange, pineapple, cabbage and carrot may be taken during this period. Long juice fast up to 40 days can also be undertaken, but only under expert guidance and supervision. In the alternative, short juice fasts should be repeated at regular intervals of two months or so till the desired reduction in weight is achieved.

After the juice fast, the patient should spend a further four or five days on an all-fruit diet, taking three meals of fresh juicy fruits, such as oranges, grapefruit, pineapple and papaya. Thereafter, he may gradually embark upon a low-calorie well-balanced diet of three basic food groups, namely (i) seeds, nuts and grains, (ii) vegetable and (iii) fruits, with emphasis on raw fruits, vegetables and fresh juices.

The foods which should be drastically curtailed or altogether avoided are high-fat substances such as butter, cheese, chocolate, cream, ice cream, fat meats, fried foods and gravies; high carbohydrate foods like bread, candy, cake, cookies, cereal products, legumes, potatoes, honey, sugar, syrup and rich puddings; beverages such as all-fountain drinks and alcoholic drinks.

Fasting on honey-lime juice water is highly beneficial in the treatment of obesity without the loss of energy and appetite. In this mode of treatment, one spoon of fresh honey should be mixed with a juice of half a lime in a glass of lukewarm water and taken at regular intervals.

Cabbage is considered to be an effective home remedy for obesity. Recent research has discovered in this vegetable a valuable content called tertronic acid which inhibits the convertion of sugar and other carbohydrates into fat. Hence, it is of great value in weight reduction. A helping of cabbage salad would be the simplest way to stay slim, a painless way of dieting.

Along with dietetic treatment, the patient should adopt all other natural methods of reducing weight. Exercise is an important part of weight reduction plan. It helps to use up calories stored in body fat and relieves tension, besides toning up the muscles of the body. Walking is the best exercise to begin with and may be followed by running, swimming, rowing and other outdoor sports.

Certain yogic asanas are highly beneficial. They not only break up or re-distribute fatty deposits and help slimming, but also strengthen the flabby areas. These asanas include bhujangasana, shalabhasana, chakrasana, vajrasana, yogamudra and trikonasana. They work on the glands, improve circulation, strengthen many weak areas and induce deep breathing which helps to melt off excess fat gradually.

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CHAPTER 10

THIRTY USEFUL TIPS FOR BETTER LIVING

Elderly persons should take certain precautionary measures to make old age happy, safe and comfortable. Herein are given 30 useful tips which the elderly can follow with great

advantage:

1. Develop a positive outlook towards changed style of living. Since the process of ageing is inevitable, accept old age gracefully and learn to enjoy the remaining years of life.
2. Cultivate healthy habits. Eat natural foods and undertake moderate exercises, specially walking and yogic practices. Avoid smoking and drinking.
3. Eat less. Calorie restriction can prevent age-related diseases and slow down ageing process.
4. Develop spiritual outlook and pray regularly as prayer strengthens the body and prolongs life.
5. Take adequate rest, relax as often as possible, and sleep well. An afternoon nap can boost your life span as well as your performance.

6. Laugh as often as possible as laughter exercises the body, relaxes muscle tension, improves circulation and builds up body resistance.
7. Do not brood over the past events, nor worry about the future events, but concentrate on present happenings around you.
8. Adjust your needs to suit the purse and learn to live like a common man.
9. Keep yourself occupied with some useful pursuits of your choice which may bring some money. Also cultivate some useful hobbies like music, painting and gardening.
10. You can stay active and productive by participating in community work like better environment projects, adult literacy programme, taking interest in civil facilities, voluntary service at old-age homes and handicapped centres and consumer protection work.
11. Avoid squatting on the floor in the house or elsewhere as it may cause pain in the groins and joints of legs. Sit on a chair, bench, sofa or firm stool with your legs on the floor. Adopt a posture in which the back remains erect.
12. Keep a small torch handy near the pillow at night, so that when you get up to answer nature's call, you can easily locate the bathroom without difficulty and without disturbing others in their sleep.
13. Take bath in a sitting position preferably on a small stool. Never bathe in a standing position as the weight of the body is on the legs and there is every possibility of slippage because the bathroom floor has a lot of soap lather and other oily substances which make it slippery. Accidents usually take place in the bathroom.
14. Take time over your appearance and grooming. Brush the hair and clip the nails. Wear neatly-pressed clothes as they are positive signs of self-esteem. Use clean and somewhat loose clothes and always wear smile
15. Wear well-fitting shoes or slippers with non-slip soles. Avoid long shoelaces, which can get untied easily and cause you to trip.
16. Never walk around with glasses on your nose, if they are meant for reading only. Take them off while walking about.
17. Store frequently-used items in places where you can reach them easily. Avoid climbing on the chairs or stools unnecessarily. Climb only if you must, but ensure that you have a sturdy and stable ladder or chair or stool.
18. While walking on the road, always keep to the extreme right side of the road which is relatively safe for pedestrians This will help prevent accidents from speeding vehicles.

19. Also keep your pace somewhat slow so that you can pause for a while when a speeding vehicle passes by.

20. If you have to cross the road, take all precautions and cross only when you consider it very safe. Do not hesitate to take the help of a fellow pedestrian, younger than you, in crossing a busy road.

21. Do not think or brood over some issue while walking or crossing the road. Keep all your attention on the road and the traffic only.

22. Take a walk early in the morning, if possible, when there is much less traffic on the road and the atmosphere is also less polluted.

23. If you have to climb, take the support of the railing with one hand and keep your attention on placing your feet carefully and firmly on the steps of the staircase. A little carelessness in placing a foot on the steps may cause slippage and result in an accident.

24. Travel light, when you travel by train, bus, boat, plane, or in your own car. Take no more luggage than you are able to carry on your own.

25. Continue to take interest in your sex life. Physical closeness and warmth are important.

26. Spend a lot more time with your spouse. Give opportunity to each other for independent activities and share the domestic work with your spouse.

27. Make a formal will, if you have not done so already. If necessary, inform a close relative or friend of its contents and its location.

28. If you are living with your son or daughter, schedule your activities to suit their convenience. A little thoughtfulness goes a long way in maintaining a congenial atmosphere.

29. Give advice to your children only when asked and then too sparingly. That way, you ensure that you will be heeded.

30. Be realistic in your expectations of your adult children. Accept the way they conduct their lives and their career choices.

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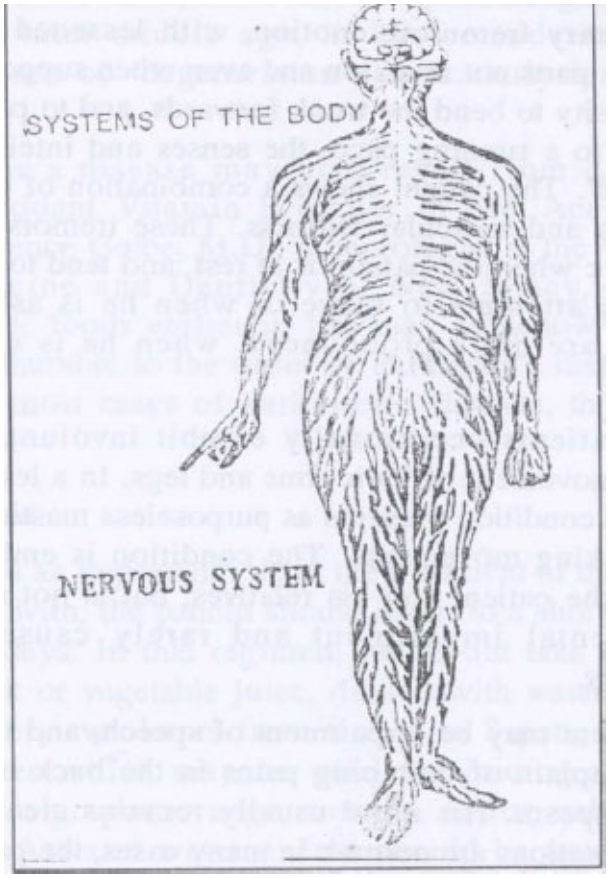
SECTION II

NERVOUS SYSTEM
AND
MENTAL DISORDERS

CHAPTER 14

PARKINSON'S DISEASE

Parkinson's disease, also known as paralysis agitans or shaking palsy, is a serious chronic disease of the nervous system. It is characterised by stiffness of muscles and a continual tremor or shake. It is a disease of the extrapyramidal system.



Parkinson's disease is a serious disease of the nervous system.

Parkinson’s disease is widely prevalent in old age and is largely regarded as a disease of the elderly. It affects one to two per cent of those aged 60 years or over. The incidence rises further with advancing age. An epidemological study by Godwin and Austen in 1982 has shown that 58 per cent sufferers in Britain are aged 70 or more.

Symptoms

The description of the disease originally given by Dr. James Parkinson of Shoreditch in 1817 is as follows: ‘Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when Supported, with a propensity to bend the trunk forwards, and to pass from a walking to a running pace, the senses and intellect being uninjured’. The patient shows a combination of tremors of the limbs and muscular stiffness. These tremors are more noticeable when the patient is at rest, and tend to disappear when he attempts to move or when he is asleep. The tremors are more pronounced, when he is excited or fatigued.

Older patients occasionally exhibit involuntary rapid jerking movement of their arms and legs. In a less extreme form the condition presents as purposeless mastication and lip smacking movements. The condition is embarrassing both to the patient and his relatives, but is not associated with mental impairment and rarely causes severe incapacity.

Later, there may be impairment of speech, and the patient may complain of cramping pains in the back because of muscle spasm. His mind usually remains clear, and his other sensations are normal. In many cases, the patient may have only a mild form of Parkinson’s disease and continue this way for many years before any serious symptoms develop. In severe and advanced cases, however, the patient is not able to move, and presents a distressing spectacle, for his mind

may be uninjured while he cannot speak or write.

Causes

Parkinson’s disease may follow severe attacks of encephalitis or some type of poisoning, such as carbon monoxide. In older patients, this type of palsy may be due to hardening of the arteries in certain vessels leading to the brain. In most cases, however, the disease begins to show itself in later middle age, and is considered to be a consequence of ‘degeneration’, particularly in the basal ganglia.

Parkinson’s disease may also result from deficiency of antioxidant Vitamin E earlier in life. According to Dr. Lawrence Golbe, M.D., a neurologist at the University of Medicine and Dentistry of New Jersey, too little Vitamin E foods earlier in life may somehow leave the brain vulnerable to the onset of Parkinson’s disease years later. In most cases of Parkinson’s disease, the cause is unknown.

Treatment

Diet plays an important role in the treatment of this disease. To begin with, the patient should resort to a short juice fast for five days. In this regimen, he should take a glass of fresh fruit or vegetable juice, diluted with water on 50:50 basis, every two hours from 8 a.m. to 8 p.m. Fruits and vegetables which may be used for juicing are apple, pineapple, grapes, orange, tomato, carrot, cabbage and spinach. A warm water enema should be used daily to cleanse the bowels during the period of fasting.

After the short juice fast, the patient may adopt an all-fruit diet for further 5 days. During this period, he should take three meals a day of fresh juicy fruits,

such as apple, pear, peach, papaya, grapes, orange and pineapple, at five-hourly intervals. Thereafter, he may gradually adopt a well-balanced lacto-vegetarian diet. The emphasis should be on raw seeds, nuts and grains, plenty of sprouts, raw milk, preferably goat's milk, and raw fruits and vegetables. Green leafy vegetables and yellow turnips are especially beneficial. Sesame seeds and sesame seed butter can be taken with beneficial results. In general, a low-protein diet of raw, organically grown foods is best for the patient with Parkinson's disease.

The patient should avoid tea, coffee, chocolate, salt, spices, condiments, pickles, flesh foods, white flour and white sugar and all processed, tinned, canned and frozen foods. The short juice fast followed by an all-fruit diet should be repeated at monthly intervals till condition improves.

Use of Vitamin E in high doses is considered beneficial on the treatment of Parkinson's disease. There is preliminary evidence to suggest that massive doses of Vitamin E, say, 800 to 3,000 international units daily, may slow down the progress of the disease. Extensive studies about the efficacy of the Vitamin E therapy for Parkinson's disease are, however, still being carried out.

Everything possible should be done to help the patient to maintain a cheerful mental outlook. He should remain as active as possible and lead a quiet life. Hot moist packs may be applied to the stiffened muscles which should also be gently massaged. The daily warm bath is useful. Fresh air and light exercise, especially walking, are essential to the treatment of Parkinson's disease.

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SECTION III

VISUAL DISORDERS

SECTION IV

CARDIO-VASCULAR SYSTEM DISORDERS

SECTION V

RESPIRATORY SYSTEM DISORDERS

SECTION VI

DISEASES OF THE GASTRO-INTESTINAL SYSTEM

SECTION VII

MUSCULO-SKELETON SYSTEM DISORDERS

SECTION VIII

DISEASES OF THE KIDNEY
AND
URINARY SYSTEM

SECTION IX

DISEASES OF ENDOCRINE SYSTEMS

SECTION X

OTHER DISEASES

APPENDICES

CHART SHOWING THE COMMON FOODS WITH ACID AND ALKALINE ASH

FOOD LEAVING AN ACID ASH
(One-fifth class)

Barely	Eggs
Bananas (unripe)	Grain Foods
Beans	Lentils
Bread	Meats
Cereals	Nutsexceptalmonds
Cakes	oatmeal
Chicken	Peas
Confection	Rice
Cheese	Sugar
Chocolate	Tea

Coffee

FOODS LEAVING AN ALKALINE ASH
(Four-Fifths class)

Almonds

Apples

Apricots

Bananas (Ripe)

Beets

Cabbage

Carrots

Cauliflower

Celery

Coconuts

Cottage Cheese

Cucumbers

Dates

Figs (Fresh and Dry)

Grapes

Lemons

Lettuce

Melons

Milk

Onions

Oranges

Parsley

Peaches

Pears

Pineapple

Potatoes

Pumpkins

Radishes

Raisins

Spinach

Soyabeans

Tomatoes

Turnips

Lettuce

FOOD COMBINING CHART

Food Groups	Proteins	Fats	Starches	Vegetables	Sweet Fruits	Sub-acid Fruits	Acid Fruits
Proteins	Good	Poor	Poor	Good	Poor	Fair	Good
Fats	Poor	Good	Fair	Good	Fair	Fair	Fair
Starches	Poor	Fair	Good	Good	Fair	Fair	Poor
Vegetable	Good	Good	Good	Good	Poor	Poor	Poor
Sweet Fruits	Poor	Fair	Fair	Poor	Good	Good	Poor
Sub-acid Fruits	Fair	Fair	Fair	Poor	Good	Good	Good
Acid Fruits	Good	Fair	Poor	Poor	Poor	Good	Good

Proteins: Nuts, seeds, soyabeans, cheese, eggs, poultry* meat* fish* yoghurt.

Fats: Oils, olives, butter, margarine.

Starches: Whole cereals, peas, beans, lentils.

Vegetables: Leafy green vegetables, sprouted seeds, cabbage, cauliflower, broccoli, green peas, celery, tomatoes, onions.

Sweet Fruits: Bananas, figs, custard apple, all-dried fruits, dates.

Sub-acid Fruits: Grapes, Pears, apples, peaches, apricots, plums, guavas, raspberries.

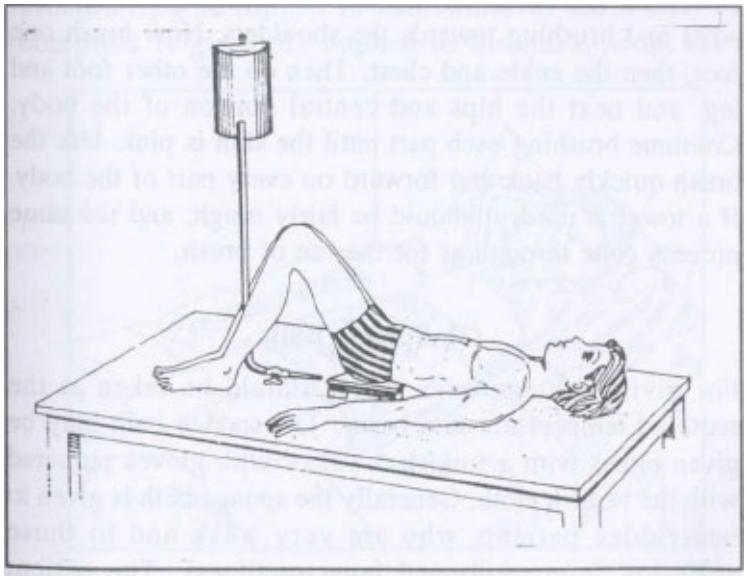
Acid Fruits:	Grapefruit, lemons, oranges, limes, pineapple, strawberries.

* Not recommended for good nutrition

NATURE CURE TREATMENTS
(Prescribed in Various Chapters)

(1) Enema

An enema involves the injection of fluid into the rectum. An enema-can is required for this purpose. This can should be filled with water at 98°F temperature and placed on a suitable hook at a height of four to six feet from the ground. The patient is made to lie on his right side extending his right leg and folding the left leg at right angle. The enema nozzle, lubricated with oil or vaseline, is inserted in the rectum. The water is now allowed to enter into the rectum. Generally, one to two litres of water is injected. The patient may either lie down on his back or walk a little while retaining the water. After five to 10 minutes, the water can be ejected along with the accumulated morbid matter.



How to take enema

A warm-water enema helps to clean the rectum of accumulated faecal matter. This is not only the safest system for cleaning the bowels, but it also improves the peristalic movement of the bowels and thereby relieves constipation.

(2) Dry Friction

Dry friction bath is an excellent method of keeping the skin in order. It increases the activity of all the functional processes lying at or near the surface of the body. This bath can be taken with a rough dry towel or with a moderately soft bristle brush. If the brush is used, the procedure is as follows. Take the brush in one hand and begin with the face, neck and chest. Then brush one arm, beginning at the wrist and brushing towards the shoulders. Now brush one foot, then the ankle and chest. Then do the other foot and leg, and next the hips and central portion of the body. Continue brushing each part until the skin is pink. Use the brush quickly back and forward on every part of the body. If a towel is used, it should be fairly rough, and the same process gone through as for the use of brush.

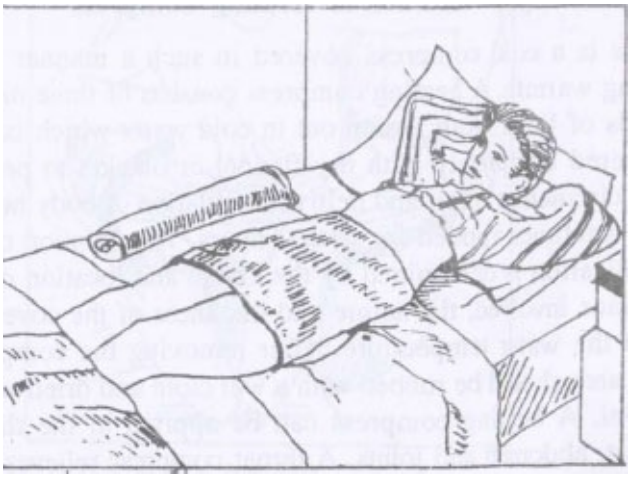
(3) Sponge Bath

For giving sponge bath, water should be taken at the required temperature in a basin. The sponge bath may be given either with a turkish towel or with gloves prepared with the turkish cloth. Generally the sponge bath is given to bed-ridden patients who are very weak and to those suffering from prolonged fever or illness. The patient should be covered with a bedsheet and the limbs rubbed one after the other with the turkish towel dipped frequently in water. Soon after the friction, the legs should be dried. The patient should again be covered with the bed sheet. Sponge one part at a time in the following order; arms, chest, abdomen, legs, feet and back. For the arm or leg, spread the towel under the

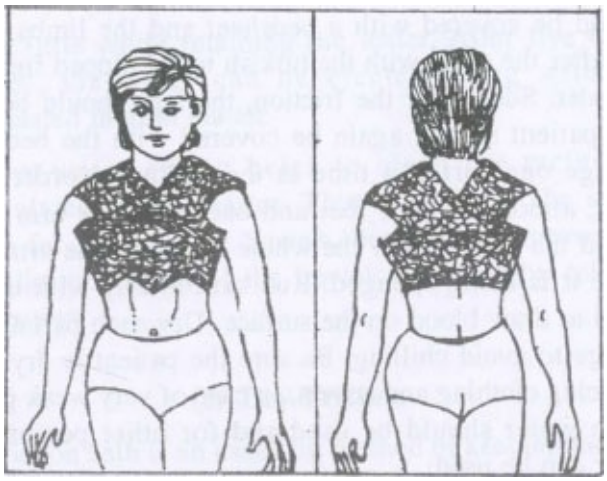
whole length of the arm or leg while it is being sponged. Rub skin briefly with the face towel to draw blood on the surface. Dry each part after the sponge to avoid chilling. Be sure the patient is dry before replacing clothing and covers. In case of very weak patients warm water should be used and for other persons cold water can be used.

(4) Cold Compress

This is a local application using a cloth which has been wrung out in cold water. The cloth should be folded into a broad strip and dipped in cold water or ice water. The compress is generally applied to the head, neck, chest, abdomen and back. The cold compress is an effective indirect means of controlling inflammatory conditions of the liver, spleen, stomach, kidneys, intestines, lungs, brain, pelvic organs and so on.



Cold Packs or Heating Compress



Cold Packs on Abdomen

(5) Wet Pack or Heating Compress

This is a cold compress covered in such a manner as to bring warmth. A heating compress consists of three or four folds of linen cloth wrung out in cold water which is then covered completely with dry flannel or blanket to prevent the circulation or air and help accumulation of body heat. It is sometimes applied for several hours. The duration of the application is determined by the extent and location of the surface involved, the nature and thickness of the coverings and the water temperature. After removing the compress, the area should be rubbed with a wet cloth and dried with a towel. A heating compress can be applied to the throat, chest, abdomen and joints. A throat compress relieves sore throat, hoarseness, tonsillitis, pharyngitis and laryngitis. An abdominal compress helps those suffering from gastritis, hyperacidity, indigestion, jaundice, constipation, diarrhoea, dysentery and other ailments relating to the abdominal organs. The chest compress, also known as chest pack, relieves cold, bronchitis, pleurisy, pneumonia, fever, cough and so on, while the joints compress is helpful for inflamed joints, rheumatism, rheumatic fever and sprains.

(6) Hip Baths

The hip bath is one of the most useful forms of hydrotherapy. As the name suggests, this mode of treatment involves only the hips and the abdominal region below the navel. A special type of tub is used for the purpose. The tub is filled with water in a way that it covers the hips and reaches upto the navel when the patient sits in it. Generally four to six gallons of water is required. If the special tub is not available, a common tub may be used. A support may be placed under one edge to elevate it by two or three inches. Hip bath is given in cold, hot, neutral or alternate temperatures.

Hip Bath

(i) Cold Hip Bath

The water temperature should be 10°C to 18°C. The duration of the bath is usually 10 minutes. If the patient feels cold or is very weak, a hot foot immersion should be given with the cold hip bath. The legs should be so adjusted that there is no pressure upon the muscles, ligaments and blood vessels of the knee region.

The patient should rub the abdomen briskly from the naval downwards and across the body with a moderately coarse wet cloth. The legs, feet and upper part of the body should remain completely dry during and after the bath. The patient should undertake moderate exercise after the cold hip bath to warm the body. A cold hip bath is a routine treatment in most diseases. It relieves constipation, indigestion, obesity and helps the eliminative organs to function properly.

(ii) Hot Hip Bath

This bath is generally taken for eight to 10 minutes at a water temperature of 40°C to 45°C. The bath should start at 40°C. The temperature should be gradually increased to 45°C. No friction should be applied to the abdomen. Before entering the tub, the patient should drink one glass of cold water. A cold compress should be placed on the head. Care should be taken to prevent the patient from catching a chill after the bath. The bath should be terminated and the patient should be given a cold shower. A hot hip bath helps to relieve pain in the pelvic organs, painful urination and inflammed rectum or bladder.

(iii) Neutral Hip Bath

The temperature of the water should be 32°C to 36°C. Here too, friction to the abdomen should be avoided. This bath is generally taken for 20 minutes to an hour. The neutral hip bath helps to relieve all acute and sub-acute inflammatory conditions.

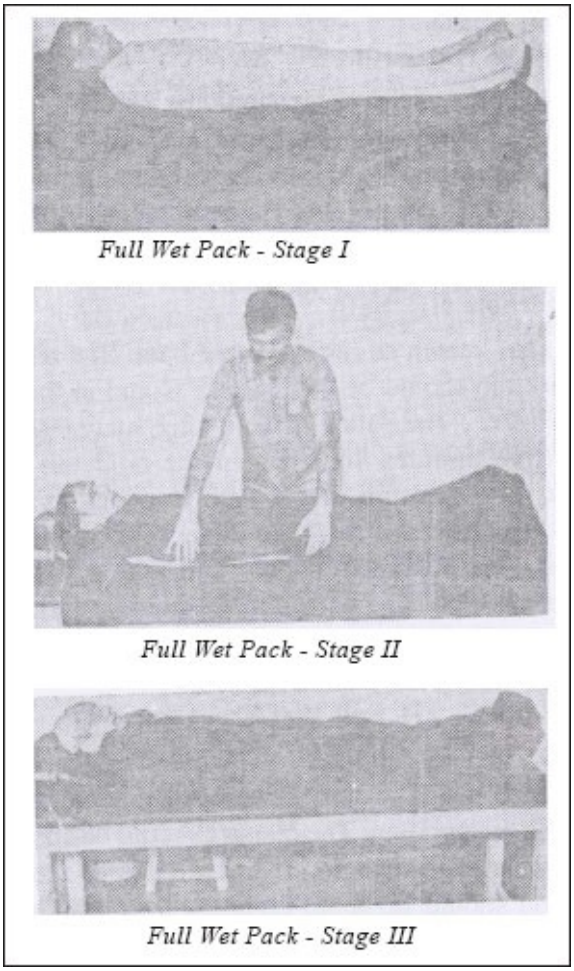
(iv) Alternate Hip Bath

This is also known as revulsive hip bath. The temperature in the hot tub should be 40°C to 45°C and in the cold tub 10°C to 18°C . The patient should alternately sit in the hot tub for five minutes and then in the cold tub for three minutes. The duration of the bath is generally 10 to 20 minutes. The head and neck should be kept cold with a cold compress. The treatment should end with a dash of cold water to the hips. The bath relieves chronic inflammatory conditions of the pelvic viscera.

(7) Full Wet Sheet Pack

This is a procedure in which the whole body is wrapped in a wet sheet, which in turn is wrapped in a dry blanket for regulating evaporation. The blanket should be spread on the bed with its edges hanging over the edge of the bed. The upper end should be about eight inches from the head of the bed. Then spread a linen sheet wrung out in cold water over the blanket so that its end is slightly below the upper end of the blanket. The patient should lie on the bedsheet with his shoulders about three inches below the upper edge. The wet sheet should be quickly wrapped round the body of the patient, drawn in, tightly tucked between the legs and also between the body and the arms. The sheet should be folded over the shoulders and across the neck. **Now the** blanket should be drawn tightly around the body **and** tucked in along the side in a similar manner, pulling it tightly. The ends should be doubled up at the feet. A **turkish** towel should be placed below the chin to protect the **face** and neck from coming into contact with

the blanket and to exclude outside air more effectively. The head should be covered with a wet cloth so that the scalp remains cold. The feet should be kept warm during the entire treatment. If the patient's feet are cold, place hot water bottles near them to hasten reaction. The pack is administered for half an hour to one hour to one hour till the patient begins to perspire profusely. He may be given cold or hot water to drink.



Full Wet Pack - Stage I

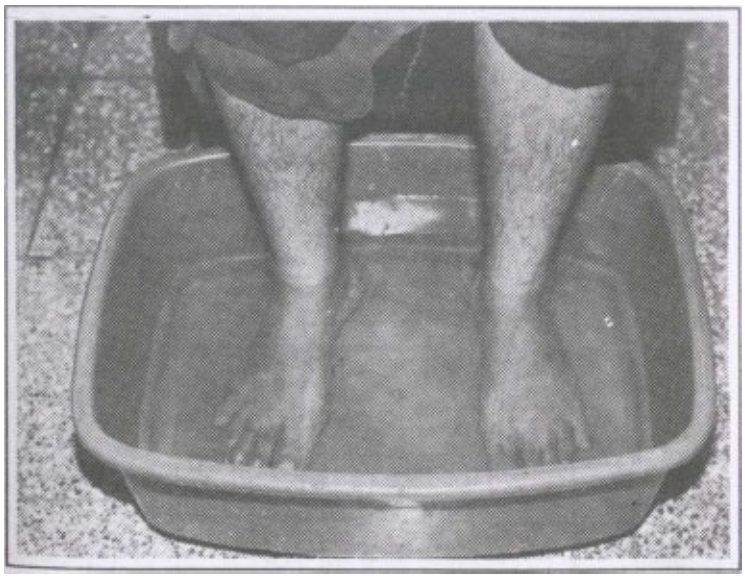
Full Wet Pack - Stage II

Full Wet Pack - Stage III

This pack is useful in cases of fever, especially in typhoid and continued fevers, and benefits those suffering from insomnia, epilepsy and infantile convulsion. It is useful in relieving chronic cold and bronchitis.

(8) Hot Foot Bath

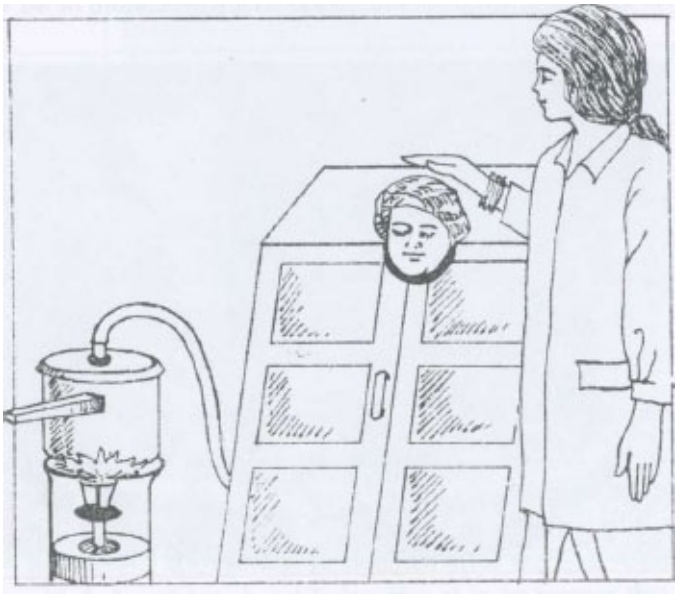
In this method, the patient should keep his or her legs in a tub or bucket filled with hot water at a temperature of 40°C to 45°C. Before taking the bath a glass of water should be taken and the body should be covered with a blanket so that no heat or vapour escapes from the foot bath. The head should be protected with a cold compress. The duration of the bath is generally from five to 20 minutes. The patient should take a cold shower immediately after the bath. The hot foot bath stimulates the involuntary muscles of the uterus, intestine, bladder and other pelvic and abdominal organs.



Hot foot bath

(9) Steam Bath

Steam bath is one of the most important time-tested water treatments which induces perspiration in a most natural way. The patient, clad in minimum loin cloth or underwear, is made to sit on a stool inside a specially designed cabinet.



Full Steam Bath

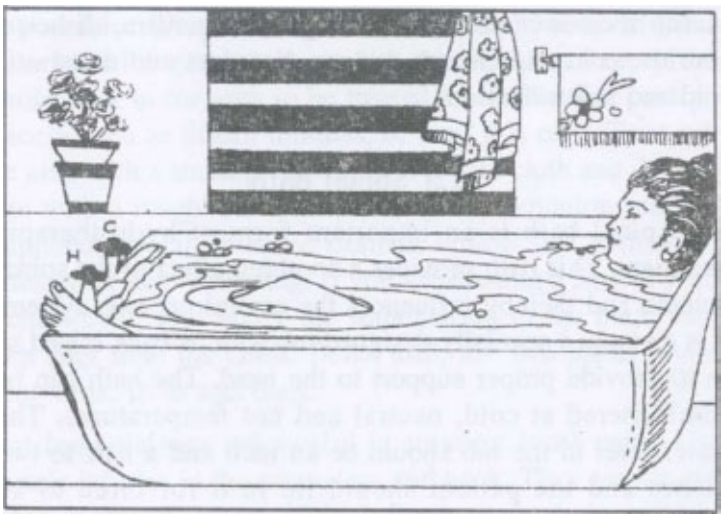
Before entering the cabinet, the patient should drink one or two glasses of cold water and protect the head with a cold towel. The duration of the steam bath is generally 10 to 20 minutes or until profuse perspiration takes place. A cold shower should be taken immediately after the bath.

If the patient feels giddy or uneasy during the steam bath, he or she should immediately be taken out and given a glass of cold water and the face washed with cold water.

The steam bath helps to eliminate morbid matter from the surface of the skin. It also improves circulation of blood and tissue activity. It relieves rheumatism, gout, uric acid problems, jaundice and obesity. The steam bath is helpful in all forms of chronic toxemias. It also relieves neuralgias, chronic nephritis, infections, tetanus and migraine.

(10) Neutral Immersion Bath

This is also known as full bath. It is administered in a bath tub which should be properly fitted with hot and cold water connections. This bath can be given from 15 to 60 minutes at a temperature ranging from 26°C to 28°C. It can be given for long duration, without any ill-effects, as the water temperature is akin to the body temperature. The neutral bath diminishes the pulse rate without modifying respiration. This treatment is the best sedative. Since the neutral bath excites activity of both the skin and the kidneys.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Full Tub Bath

(11) Epsom-Salt Bath

The ordinary bath tub should be filled with about 135 litres of hot water at 40°C. One to one and a half kg of Epsom salt should be dissolved in this water. The patient should drink a glass of cold water, cover the head with a cold towel and then lie down in the tub, completely immersing the trunk, thighs and legs for 15 to 20 minutes. The best time to take this bath is just before retiring to bed. This is useful in cases of sciatica, lumbago, rheumatism, diabetes, neuritis, cold and catarrh, kidney disorders and other uric acid and skin affections.

(12) Spinal Bath

The spinal bath is an important form of hydrotherapic treatment. This bath provides a soothing effect to the spinal column and thereby influences the central nervous system. It is given in a specially designed tub with its back raised so as to provide proper support to the head. The bath can be administered at cold, neutral and hot temperatures. The water level in the tub should be an inch and a half to two inches and the patient should lie in it for three to 10 minutes.

The cold spinal bath relieves irritation, fatigue, hypertension and excitement. It is beneficial in almost all nervous disorders, loss of memory and tension. The neutral spinal bath is a soothing and sedative treatment, especially for the highly strung and irritable patient. It is the ideal treatment for insomnia and also relieves tension of the vertebral column. The duration of this bath is 20 to 30 minutes. The hot spinal bath, on the other hand, helps to stimulate the nerves, especially when they are in a depressed state. It also relieves vertebral pain in spondylitis and muscular backache. It relieves sciatic pain and gastrointestinal pain of gastric origin.

(13) Hot Fomentation

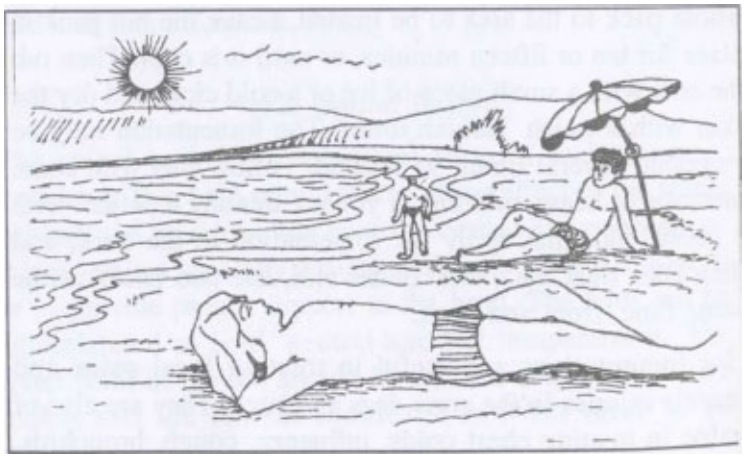
A fomentation is a local application of moist heat by means of cloths wrung from hot water. Select a piece of blanket or flannel large enough to fit over the chest or back. Fold it into a pack, dip it in very hot water, and wring it out as dry as possible. Wrap this in a dry Turkish towel, or other material thick enough to protect the skin, and apply the whole pack to the area to be treated. Leave the hot pack in place for ten or fifteen minutes, or until it is cool. Then rub the area with a small piece of ice or a cold cloth and dry the skin with a rough Turkish towel. The fomentation may be reapplied several times, as desired. Follow this with some massage or heavy rubbing. If you are treating a patient with a chest cold, first apply the fomentation to the back, and then later treat the chest. Better still, use two packs at the same time, front and back.

Hot fomentations are useful in treating local pains and muscle injuries in the arms, legs and back. They are also of value in treating chest colds, influenza, cough, bronchitis, laryngitis, pleurisy; and inflammation in any part of the body. Patients suffering from arthritis can also benefit from this treatment. However, the greatest value of this form of water treatment is found in cases of colds and respiratory infection.

(14) Sun Bath

Sub bath consists of the application of natural sunlight directly to the exposed body surface. Sun bath should be taken between 8 a.m. and 11 a.m. and between 2 p.m. and 4 p.m. in summer between 7 a.m. and 9 a.m. and between 3 p.m. and 5 p.m. The sun bath can be taken by exposing either the whole or a part of the body to the direct exposure of the solar rays. The patient should commence the treatment for 5 minutes on the 1st day. The duration should be gradually increased by 5 minutes daily to 2 to 3 hours in the final stage. The head should

not be exposed and the eyes should be protected against glare by shielding them with coloured glasses or a dark cloth. In the alternative, cold wet compresses may be used to cover the head and the eyes. The patient should drink a glass of cold water before starting the bath and also drink water whenever he feels thirsty during the bath. The treatment should be concluded by cooling douche or wet hand rub so as to cool and invigorate the skin.



Sun Bath

Sunlight promotes health and prevents disease. The direct rays of the sun kill disease germs in a very short time. The maximum results can be attained if sunshine can be made to fall directly upon the diseased tissues. This bath also vitalizes and energizes the body and increases its resistance power.

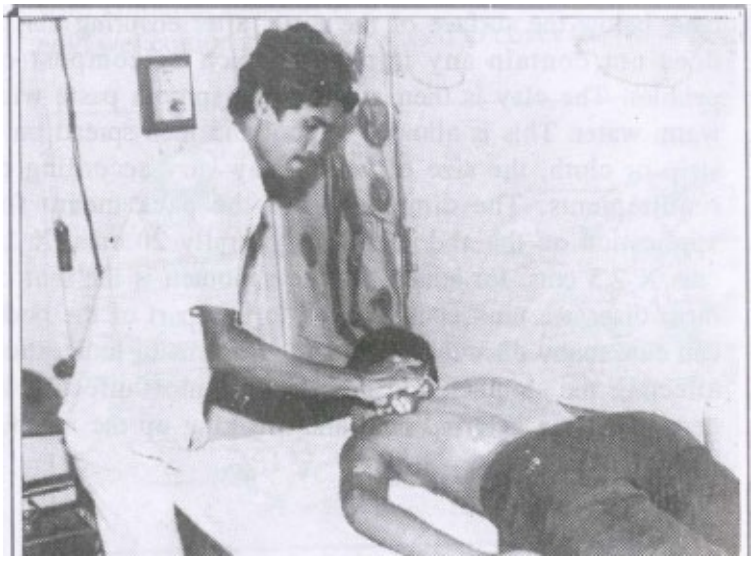
(15) Mud Packs

The use of mud packs has been found highly beneficial and effective in the treatment of chronic inflammations caused by internal diseases, bruises, sprains, boils and wounds. A mud pack is prepared with clay obtained from about ten cms, below the surface of the earth, after ensuring that it does not contain any impurities such as compost or pebbles. The clay is then made into a smooth paste with warm water. This is allowed to cool and then spread on a strip or cloth, the size of which may vary according to requirements. The dimensions of the pack meant for application on the abdomen are generally 20 cms. X 10 cms X 2.5 cms. for adults. As the abdomen is the seat of most diseases, mud pack applied to this part of the body can cure many disorders including all forms of indigestion affecting the stomach and bowels. It is most effective in decreasing the external heat and breaking up the morbid matter.

(16) Massage

Massage is an excellent form of passive exercise. It involves the scientific manipulation of the soft tissues of the body. If correctly done on a bare body, it can be highly stimulating and invigorating. The general massage, dealing with all parts of the body, tones up the nervous system, influences respiration and quickens the elimination of poisons and waste material from the body through the various eliminative organs such as lungs, skin, kidneys and bowels. It also boosts blood circulation and metabolic processes.

Cotton seed oil is most commonly used for massaging. If the patient is averse to oil, talcum powder may be used. General body massage may be done for 40 to 45 minutes and local body massage for 10 to 15 minutes. The oil should be washed off completely after massage.



(i) Abdominal Massage

This form of massage is beneficial in constipation. It stimulates the peristalsis of the small intestines, tones up the muscles of the abdomen walls and mechanically eliminates the contents of both large and small intestines. Abdominal massage should not be done after a heavy meal, but after two hours or so. The bladder should be emptied before the massage. The patient is made to lie on his back with his knees drawn up. This enables the abdomen wall to relax. The massuer should stand at the right side of the patient and use finger tips for friction round the umbilical region from right to left. He should likewise alternatively knead the walls and roll with both hands, making deep and firm pressure. He should knead with heal of the hand and finger tips and later take up massaging the larger intestines. The manipulation of the large intestine should begin on the right side. Keep it going upwards and across the transverse colon and move right down on the left side to the sigmoid flexure and rectum. Circular kneading should be done with the help of the three middle fingers. At the same time, press into the contents of the abdomen, following the course of the larger colon with a crawling motion. Keep kneading by means of a few circular movements in one spot'with the help of finger tips. Keep moving the fingers a little further along. Knead repeatedly. Use knuckles of the hand to make deep pressures along the larger colon, moving the hands along after each pressure.

(ii) Chest Massage

Chest massage strengthens the chest muscles, increases circulation and tones up the nervous system of the chest, heart and lungs. It is especially recommended in weakness of the lungs, palpitation and organic heart disorders.

The patient is made to lie on the back with the arms at the sides. The masseur starts manipulating the chest by means of strokes with both hands on each side

of the breast bone. A circular motion is formed by the movement made up and down, moving down the chest. Next the muscle kneading is done by picking up the skin and muscles with both hands. Treatment is given on both the sides of the chest likewise. Circular kneading is next done by placing one hand on each side of the breast bone and making the circular motions outward towards the sides.

(iii) Massage of the Throat

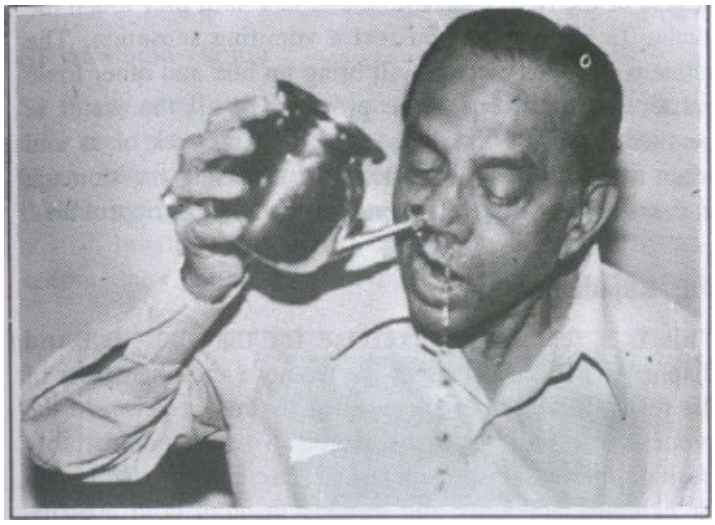
This helps to overcome headache, sore throat and catarrh of the throat The patient is made to throw his head back. The masseur places palms of both hands on sides of neck with thumbs under the chin, and fingers under the ears. A downward stroke is next made towards the chest over the jugular veins. Do not exert heavily on the jugular veins. Repeat several times.

(17) Yogic Kriyas

A disease-free system should be the starting ground for yogasanas and pranayama. There are six specific cleaning techniques, known as Shat Kriyas, which eliminate impurities and help cure many ailments. Of these, the following three can be practised by older children safely.

(i) Jalaneti

Jalaneti is a process of cleansing the air passage of the nostrils and the throat by washing them with tepid saline water. Take a clean jalaneti pot. Put half a teaspoonful of salt in the pot and fill it with lukewarm drinking water.



Jalneti

Stand up and tilt your head slightly to the right. Insert the nozzle of the pot in the left nostril and let the water flow into it. Inhale and exhale through the mouth, allowing the water to flow out through the right nostril. Reverse this process by tilting your head to the left and letting the water flow from the right to the left nostril.

Jalaneti should be practised only in the morning. It will relieve sore throat, cold, cough, sinusitis, migraine, headache and cases of inflammation of the nasal membranes. It keeps the head cool and improves vision.

(ii) Kunjal or Vamana Dhouti

This is a process of cleansing the interior of the stomach. Drink four to six glasses of tepid water with a little salt added to it early in the morning on an empty stomach. Then stand up, bend forward, insert the middle and index fingers of the right hand into the mouth until they touch the uvula. Tickle it until you feel a vomiting sensation. The saline water thus ejected will bring up bile and other toxic matter with it. Repeat the process till all the water is vomited out. This should be done once a week or as and when necessary. It is beneficial for cleansing the stomach in cases of excessive bile, constipation and gastric troubles.

(iii) Kapalabhati

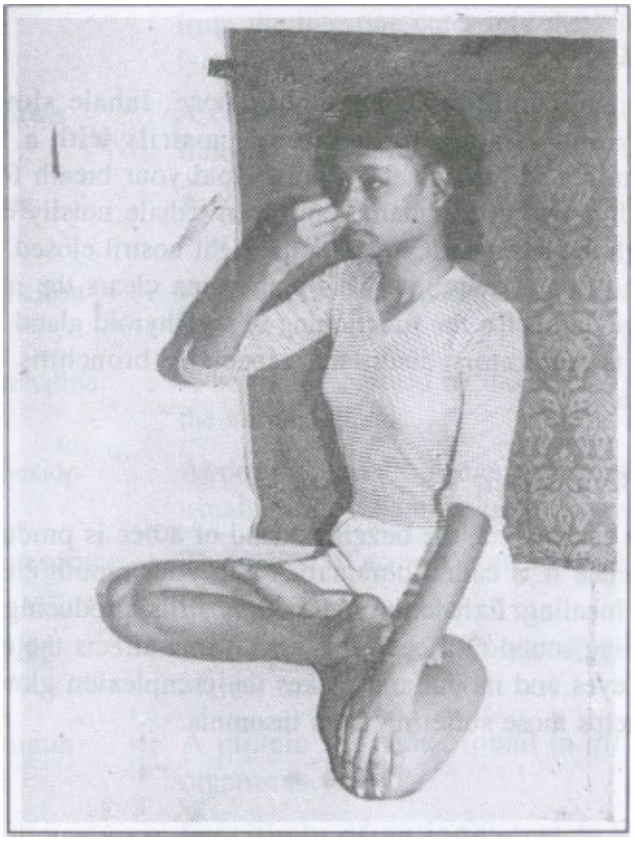
This is a respiratory exercise for the abdomen and diaphragm. The channels inside the nose and other parts of the respiratory system are purified by this exercise. In the process, the brain is also cleared. Sit in a comfortable position, preferably in padmasana. Exercise the diaphragm by exhaling suddenly and

quickly through both nostrils, producing a hissing sound. Inhaling will be automatic and passive. The air should be exhaled from the lungs with a sudden, vigorous inward stroke of the front abdominal muscles. The abdominal stroke should be completed and the breath should be expelled fully. While inhaling, no wilful expansion is necessary and the abdominal muscles should be relaxed. This exercise should be done in three phases, each consisting of 20 to 30 strokes a minute. A little rest can be taken in between. Throughout, the throacic muscles should be kept contracted. Kapalabhati enables the inhalation of a good amount of oxygen which purifies the blood and strengthens the nerve and brain centres. This kriya provides relief in many lung, throat and chest diseases like chronic bronchitis, asthma, pleurisy and tuberculosis.

(18) Pranayama

(i) Anuloma-viloma

Sit in any comfortable meditative pose, keeping your head, neck and spine erect. Rest your left hand on your left knee. Close your right nostril by pressing the tip of your right thumb against it. Breathe out slowly through the left nostril. Inhale slowly and deeply through the left nostril, keeping the right nostril closed. Close your left nostril with the little finger and ring finger of your right hand and exhale through the right nostril, keeping the left nostril closed and lastly, exhale through the left nostril, keeping the right nostril closed. This completes one round of anuloma-viloma. Repeat the entire process. Inhaling and exhaling should be done very slowly, without making any sound. This pranayama is a process of purification. It strengthens the lungs and calms the nerves. It helps cure cough and cold, insomnia, chronic headache and asthma.



Anuloma - Viloma

(ii) Ujjayi

Sit in any comfortable meditative pose. Inhale slowly, deeply and steadily through both nostrils with a low uniform sound through the glottis. Hold your breath for a second or two after inhaling and then exhale noisily only through the left nostril, keeping the right nostril closed. Do this as often as required. This pranayama clears the nasal passage and helps the functioning of the thyroid gland and benefits respiratory disorders, especially bronchitis and asthma.

(iii) Bhramari

In this pranayama, the buzzing sound of a bee is produced and hence it is called bhramari. Keep your mouth closed while inhaling. Exhale through both nostrils, producing the humming sound of a bee. This pranayama affects the ears, nose,

eyes and mouth and makes the complexion glow. It also helps those suffering from insomnia.

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GLOSSARY

Abdomen	: The part of the body between the chest and the pelvis containing the digestive organs.
Abscess	: Localised collection of pus in the body tissues.
Absorption	: The process by which digested foods from the intestine enter into the blood or lymph.
Acidosis	: A condition in which the acidity of body fluid is abnormally high.
Acute	: Any process which has sudden onset and runs a relatively severe and short course.
Addiction	: Habituation to certain drugs, foods or drinks.
Adrenaline	: A hormone secreted by the central part of the adrenal glands.
Adhesion	: Abnormal growing together of tissues, usually after inflammation or injury.
Adolescence	: The period of growth from 13 to 18 years of age.
Ageing	: The process or the effects of growing mature or old.
Albumin	: A protein substance found in all living organisms
Allergy	: Sensitivity of an individual to certain substances which do not affect most other people.

Allergen	: A substance capable of producing allergy.
Alleviate	: Relief from symptoms.
Alveoli	: Air containing vesicles.
Amino acids	: Chemical compounds out of which proteins are formed.
Amoeba	: A microscopic animal consisting of one single cell.
Anaemia	: Deficiency of red blood cells.
Androgen	: A male sex hormone.
Analgesic	: A drug for relieving pain.
Aneurysm	: Dilation of the artery due to weakened wall.
Angina Pectoris	: A pain in the chest caused by diminished supply of blood to the heart.
Ankylosis	: Stiffness of a joint.
Antibiotic	: A chemical substance having the power to retard the growth of certain germs.
Antibody	: Substances capable of counteracting the bacteria or bacterial products.
Antidote	: A substance used to counteract effect of poison or disease.
Antigen	: A protein which induces a reaction in the body and produces antibodies.
Antioxidant	: A substance that has the ability to prevent or delay deterioration caused by the oxygen.

Antiseptic	: A substance which inhibits the growth of or destroys micro organisms.
Antispasmodic	: Drugs relaxing the contracted muscles.
Antitoxin	: Substance formed in the blood stream, capable of combating certain poisons within the body.
Anus	: Outlet of alimentary canal.
Aorta	: The main artery of the body.
Appendicitis	: Inflammation of the vermiform appendix.
Apoplexy	: Brain haemorrhage or stroke.
Arteriosclerosis	: A condition of loss of elasticity and thickening of coats of the arteries with inflammatory changes.
Arthritis	: Painful swelling of joints.
Atrophy	: Wasting of the tissues.
Atherosclerosis	: Hardening of the arteries.
Atrium	: Auricle or upper chamber of the heart.
Aura	: A sensation occurring prior to the onset of an epileptic fit.
Autonomic System	: The part of the nervous system which controls the vital organs, and which is involuntary.
Bacillus	: A rod-shaped bacteria.
Bacteria	: Microbe, microorganism.
Benign	: Tumour or condition which is not malignant or cancerous.

Barium	: An opaque chemical compound for visualising the gastrointestinal tract under X-ray.
Bile	: A greenish-brown fluid secreted by the liver.
Biopsy	: Removal of a piece of tissue from the patient for the purpose of gross and microscopic examination to diagnose a disease.
Black out	: Fainting.
Blood count	: Calculation of number of red or white blood cells in a cubic millimeter of blood.
Boil	: A painful abscess at the hair root.
Bowel	: Intestine, often applied to large intestine.
Bronchiectasis	: Dilation of the bronchi, the air passages.
Bronchiole	: Tiny branches of the bronchus.
Bronchus	: Branches of windpipe.
Bunion	: A swelling of the main joint of the great toe.
Caecum	: A blind sac at the junction of the small and large intestines.
Calcification	: A process by which organic tissue becomes hardened by disposition of calcium salts within its substance.
Calculus	: A stone or stony mass of minerals formed within the body.
Calorie	: Unit of heat used for measuring the energy value of food.
Capillary	: A tiny blood-vessel, connecting a vein and artery.

Cancer	: Uncontrolled devastating growth of cells.
Carbohydrate	: Starchy food which furnishes energy.
Carcinogen	: Any substance capable of causing cancer.
Carcinoma	: Malignant or cancerous tumour of the skin or internal organs.
Cardiac	: Pertaining to the heart.
Cerebral	: Related to the brain.
Cervical spine	: The top portion of the spine (neck), composed of seven vertebrae.
Cholesterol	: A yellowish fatty substance synthesized in the liver and supplied in the diet.
Chronic	: Long continuous course of disease.
Cirrhosis	: Fibrous scar replacing the cells.
Coma	: An unconscious state from which the patient cannot be aroused.
Complication	: A condition developing during disease process.
Congenital	: A condition existing from birth.
Constipation	: Difficult or infrequent bowel movements.
Convalescence	: Gradual recovery from illness.
Convulsions	: A violent and involuntary contraction or series of contractions of the voluntary muscles.

Cornea	: The transparent circular portion of the front of the eyeball.
Coronary	: Arteries supplying blood to the heart muscles that encircle the heart like a crown.
Coronary thrombosis	: A blockage of the blood flow caused by a blood clot in a coronary artery.
Cortisone	: A steroid hormone secreted by the outer part of the adrenal glands.
Cramp	: Sharp muscular pain.
Cystitis	: Inflammation of the urinary bladder.
Decoction	: A process of boiling down so as to extract some essence.
Dehydration	: Abnormal loss of body fluids.
Delirium	: A state of mental confusion and excitement.
Diagnosis	: Identification of disease by patient's symptoms and other methods.
Diaphragm	: Muscle separating chest from abdomen.
Diastolic	: Lower level of the blood pressure within the arteries when the heart is at rest
Dimention	: Loss of intellectual function.
Disease	: The abnormal functioning of the body organ.
Disinfection	: Process of destroying pathogenic or harmful microorganisms.

Diverticulosis	:	Abnormal pockets or pouches within a mucous membrane of the colon.
Douche	:	Washing with a stream of water.
Dropsy Ductless	:	Accumulation of water in tissues
Glands	:	Glands which pour their secretions directly into the blood stream without benefit of a connecting tube.
Duodenum	:	First part of the small intestine adjacent to stomach.
Electrocardiograph	:	Diagnostic instrument used to record the electrical currents generated in the heart.
Embolus	:	A foreign body which forms an obstruction in the blood vessel.
Emphysema	:	Abnormal presence of gas or air in the body tissues. Widening of air sacs in the lungs.
Endemic	:	Disease prevalent in a particular area.
Endocardium	:	A tough glistening membrane which lines the four chambers of the heart.
Endocrine	:	Glands secreting hormones.
Enema	:	Injection of water or other liquid into the colon via the anus.
Estrogen	:	One of two hormones secreted by the ovaries.
Enzymes	:	Complex organic substances secreted by living cells, important in digestion and other bodily functions.
Epilepsy	:	A chronic disease usually functional, charectarised by brief convulsive seizures and loss of conciousness.

Excretion	: Removal of wastes from the body.
Expectoration	: The act of coughing up and spitting out materials from the lungs and trachea.
Expiration	: Process of breathing out.
Fatty acids	: One of the end products of fat digestion.
Fissure	: A crack in the membrane lining the rectum.
Flatulence	: Distension of the stomach or intestines with air of gases.
Follicle	: A pocket in the dermis containing a hair root.
Fomentation	: A hot, moist pack or application to the body.
Gangrene	: Localised death of tissues.
Gastric	: Pertaining to the stomach.
Gene	: Hereditary factor present in all cells.
Geriatrics	: The branch of medicine that deals with the structural changes, physiology, diseases and hygiene of old age.
Gerontology	: The scientific study of the process and phenomena of ageing.
Gland	: An organ that produces a specific secretion.
Globulin	: A blood protein which contains antibodies.
Glottis	: The opening of windpipe.
Glutanic acid	: A naturally occurring amino acid, a constituent of many proteins.

Goitre	: Enlargement of thyroid.
Gonads	: Testicles and ovaries.
Gynaecology	: Medical science dealing with the treatment of disorders of female reproductive system.
Haemoglobin	: Oxygen-carrying pigment found in red blood cells.
Hallucination	: A mental impression having no foundation in fact.
Hay fever	: Seasonal allergic reaction to pollen.
Heartburn	: Burning sensation in upper abdomen and chest.
Hepatitis	: Inflammation of the liver.
Heredity	: The transmission of traits from parents to offspring.
Hernia	: Rupture or protrusion of organ or part of an organ through the wall of a body cavity.
Hormone	: A glandular secretion that regulates body functions.
Hyperacidity	: An excessive degree of acidity.
Hypertension	: Increased level of blood pressure.
Ileum	: Terminal portion of the small intestine.
Immunity	: Capacity of the body to resist infection.
Impotence	: Inability to have an erection.
Infarction	: Death of tissue due to interruption of its blood supply.

Infection	: Invasion of the body by microorganisms.
Infestation	: The invasion of the body by parasites.
Inflammation	: A reaction of the body tissues to injury, infection or irritation.
Ingestion	: The act of taking food, medicines, etc., by mouth.
Inhalation	: The drawing in of air or other vapour into the lungs.
Insulin	: The hormone of the pancreas which controls the blood sugar level.
Insomnia	: The inability to sleep
Intercellular	: In between the cells.
Jaundice	: A yellow colouration of the skin due to excess of bile pigments in the blood.
Lactose	: Milk sugar.
Larynx	: Voice box.
Laxative	: A mild purgative.
Lesion	: A localised tissue damage caused by' injury or disease.
Leukaemia	: A blood disease in which the white blood cells increase enormously in number.
Ligaments	: A tough fibrous band connecting bones or other tissues of the body.
Lymph	: The clear, liquid part of the blood which enters the spaces between body cells.

Malignant tumour	: Cancer with spreading power.
Marrow	: The soft tissue in the hollow spaces of the bones.
Mastication	: Chewing.
Membrane	: A thin tissue serving to line or cover an organ.
Metabolism	: The sum of the body processes involving the building up and breaking down of tissues.
Micturition	: Process of passing urine.
Mucilage	: A sticky substance extracted from certain plants.
Mucus	: Lubricating fluid secreted by the mucous membranes of the body.
Mucous membrane	: Smooth, soft lining of the passages and cavities of the body.
Myocardial	: Pertaining to the heart muscles.
Myopia	: Short sight.
Nausea	: Vomiting sensation.
Neuralgia	: Pain in a nerve.
Neurone	: Nerve cell.
Neurosis conflict.	: Emotional disorder caused by some inner
Node	: A knot or swelling.
Nutrient	: A food substance.
Rash	: A temporary eruption on the skin.

Rectum	: Lower end of the large intestine.
Relapse	: Recurrence of symptoms.
Respiration	: Process of breathing
Response	: A reaction to a stimulus.
Retina	: Light sensitive area at the back of the eye.
Sclerosis	: Hardening of the tissues.
Screening	: Testing, viewing with x-ray under a fluoroscent screen.
Sebaceous glands	: Glands secreting and conveying oily matter to lubricate the skin or hair.
Secretion	: A product of the activity of a gland.
Sedative	: A drug or a substance which reduces excitement, irritation and pain.
Senility	: The mental and physical weakness of old age.
Serum	: The clear portion of blood separated from its clot.
Sinuses	: Hollow cavities in the nasal bones.
Skimmed milk	: Milk from which cream has been removed.
Sphygmo-manometer	: An instrument that measures blood pressure.

Sprain	: Injury to the ligament surrounding the joint.
Sputum	: Material coughed up from the lungs.
Stimulant	: Producing rapid transient increase of vital energy in organism or some part of it.
Stool	: A faecal discharge from the bowels.
Stroke	: A cerebral haermorrhage or bleeding in the brain. A sudden and severe attack as of paralysis.
Susceptibility	: Liability to get a disease; opposite of immunity.
Syndrome	: A set of signs and symptoms occurring together as an expression of a disorder of function.
Systolic	: Upper level of the blood pressure indicating the greatest force exerted by the heart.
Tendon	: A tough strand which attaches a muscle to a bone.
Thrombosis	: Clogging of a blood-vessel caused by the formation of a clot.
Thyrotonicosis	: Overactivity of the thyroid gland.
Toxin	: A poisonous substance produced by the action of microorganisms.
Trachea	: Windpipe.
Tranquillizer	: Drug used to quieten the nerves.
Trauma	: Injury.

Tumour	: Abnormal growth of a mass of cells in the body.
Ulcer	: An open sore on the skin.
Uraemia	: A morbid condition due to the excessive presence of urinary matter in the blood.
Ureter	: Duct carrying urine from the kidney to the bladder.
Urethra	: Duct carrying urine from the bladder to the exterior.
Uric Acid	: A normal constituent of blood and urine metabolism.
Vagina	: Female genital passage.
Varicose	: Dilated tortuous.
Ventilation	: Continuous supply of fresh air in indoors.
Vesicle	: A small sac containing liquid.
Vital	: Essential to life.
Wheezing	: Noisy and difficult breathing usually due to bronchial asthma.

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Dr. H.K. Bakhru enjoys a countrywide reputation as an expert naturopath and a prolific writer. His well-researched articles on nature cure, health, nutrition and herbs appear regularly in various newspapers and magazines and bear the stamp of authority.

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