



A GUIDE TO FITNESS FOR SENIOR CITIZENS



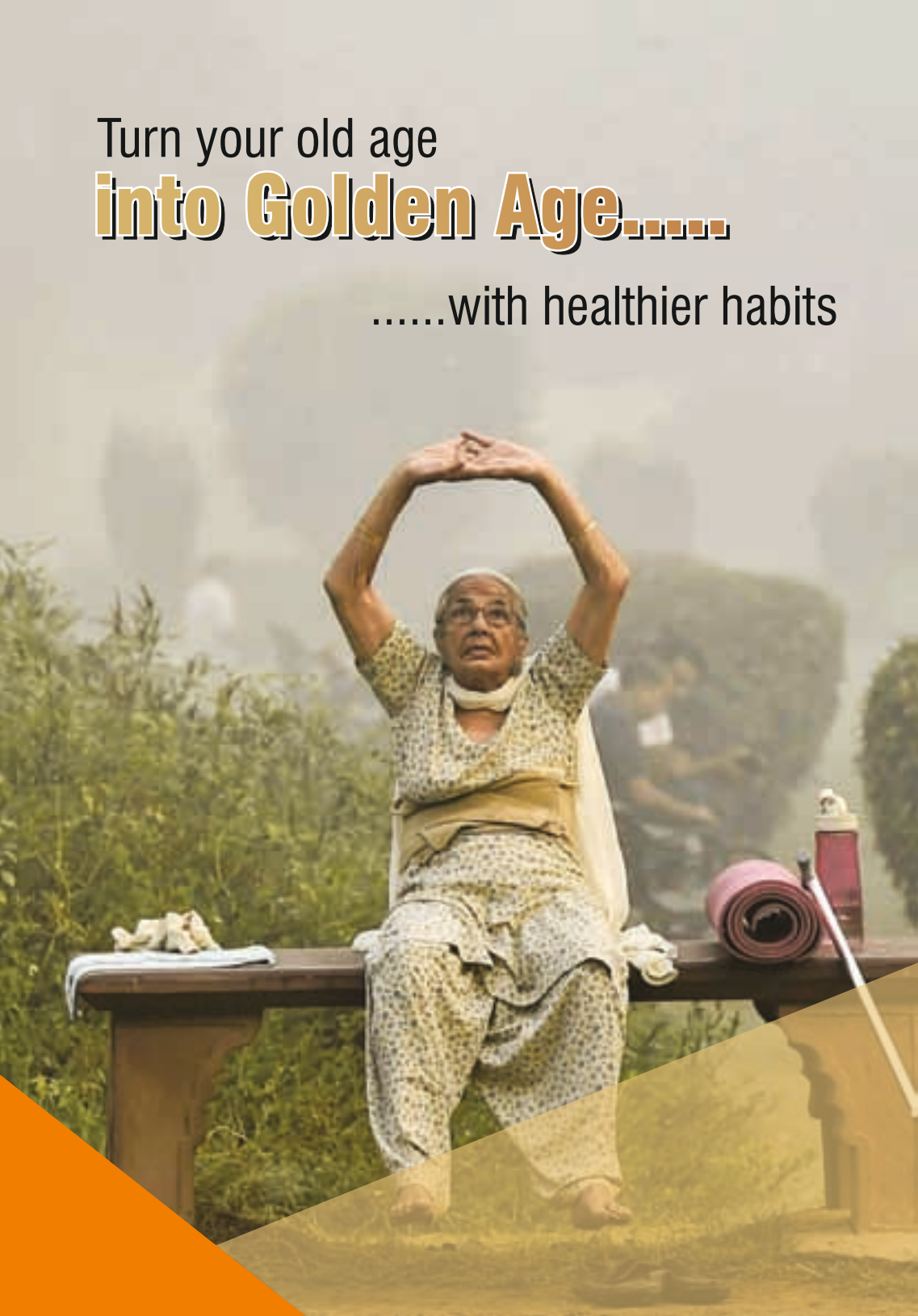
**National Programme for Health Care
of the Elderly (NPHCE)**

**Ministry of Health and Family Welfare
Government of India**



Turn your old age
into Golden Age.....

.....with healthier habits





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01

Physical changes in old age



Getting older is a natural process. A large number of people enter old age with little or no awareness of what this entails. For such people, old age sets in quietly and very few are prepared to deal with issues of ageing. Many changes take place in your body when you age. The regenerative capacity of the body declines. You are not as agile as you were before and your body shows signs of wear and tear. Changes as you get older are usually gradual. Your health may become a big concern. But you can enjoy ageing if you understand what is going on in your body and take necessary steps to maintain your health. Certain physical changes are common. These are:



Hair: Hair becomes grey and becomes thinner. Many men are affected by balding.



Skin: With old age, skin loses its elasticity and starts to sag and wrinkle.



Senses: Vision and hearing become less sharp. The senses of smell and touch may also weaken. Taste buds diminish. Food becomes less appealing and nutrition can suffer.



Teeth: The tough enamel that protects teeth from decay start to wear away over the years, leaving you susceptible to cavities. Gum disease is also a concern. Due to dental problems one is not able to chew or swallow well.



Mouth: Dryness in mouth may also be a problem. This is a common side effect of many medications that old people take.



Heart: Heart rate may lower and valves of the heart and blood vessels, may thicken. Heart can become less efficient with a resulting loss of stamina. In addition, atherosclerosis can restrict blood flow.



Bones: There is thinning of bones and decreasing bone mass. Bones can become more brittle resulting in the fragile bone condition called osteoporosis. It can put old people at increased risk of fractures.



Digestive system: Digestive tract becomes slow and does not contract as often. This can lead to dyspepsia, heart burn, flatulence and constipation.



Prostate: Increase in the size of prostate in men.



Brain and nervous system: Cells in the brain degenerate in number. This can impair brain functioning and eventually lead to dementia. However, dementia is not a natural consequence of old age. But it is common for old people to experience slight forgetfulness.



Urinary Bladder: Loss of control over urination in women is common and may be seen in men as well.



Sub-optimal function of: liver and kidney.

Many bodily changes are a natural part of ageing. With all these changes, seniors still can live normally and can continue to do so with precautions, positive attitude and healthy life style. The life style choices you make can also help reduce your chances of getting illnesses that run in your family and other diseases that arise from age related changes.

02

Common health problems of old age



Ailments that arise from age related changes in old age may seem unavoidable, but in fact there are many ways to keep your body healthy for longer. Common health problems of old age in are:

- Alzheimer's disease and other dementias
- Arthritis
- Asthma and chronic bronchitis
- Cancer
- Cataract and diminished vision
- Decline in hearing
- Depression



- Diabetes
- Enlargement of prostate in men
- Heart disease
- High blood pressure
- Indigestion and constipation
- Osteoporosis and fractures
- Parkinson's disease
- Pneumonia
- Skin become dry, rough with flakes
- Sleep disorders
- Stroke
- Tuberculosis
- Urinary incontinence in women
- Urinary tract infection



Tips on Treatment



- ❌ Avoid self-medication.
- ❌ Never compromise on treatment. Ensure access to health security and health insurance.
- ✅ Explore the best available and ensure that you are at the best hands.
- ❌ Don't delay in getting treatment because delay in treatment may aggravate the illness.
- ❌ Don't follow blindly what others suggest.
- ✅ Take the advice of a health professional.

03

How to avoid age-related illnesses and remain fit



Despite various problems of old age, one must keep oneself actively engaged for well-being and fitness. How well we age is only partly determined by genetic inheritance; but also much of it is influenced by factors under our direct control: the way we eat, exercise and our overall approach to life. Here are some healthy ageing tips that will help you to take good care of yourself:

Stay Physically Active

One of the most important things you can do for your health is to be physically active. Regular, safe and enjoyable physical activity is essential to maintain a healthy life. There are many benefits of physical activity.

- Better sleep quality and duration
- Improves appetite
- Improves intellectual functioning
- Improves the ratio of good cholesterol to bad cholesterol
- Improves mental health, Relieves stress
- Increased muscle strength and its flexibility
- Improve social engagements & social ties
- Makes you look better
- Promotes a heightened sense of physical well-being
- Reducing fall risks and arthritis
- Strengthening of bones
- Weight maintenance

Exercise

Regular exercise 4 to 5 times a week for at least 30 minutes is suggested. Being active and doing exercise is also enjoyable. Age is no barrier to taking up a new sport or physical activity. No matter what your age or condition there is a type of physical activity that is right for you. If you are not doing any exercise at present, it is good to start gently and then build up so that your body will gradually get used to it. Regular exercise needs to be a lifelong pursuit, integrated into your life style. There are so many different ways to keep fit. You should find one you enjoy.



Walking

- Walking is one of the best forms of exercise. Brisk walking to the extent of getting tired is what you need to do. The benefits of exercise are many.
 - Improves stamina and fitness.
 - Helps in controlling body weight.
 - Improves blood sugar in diabetics.
 - Slows down bone loss in weight bearing bones.
 - Give opportunity to meet other people.
 - Improves anxiety and depression.
- Never allow yourself to get bed ridden. If you need support, use a walker or walking stick to be mobile to keep your muscles and joints fit.
- Regularity is the key.
- Never over exercise and you must know when to stop.
- If you have any serious disease of heart and lung, or mobility problem; you must consult a doctor before starting a walking exercise activity.
- Exercising in morning in open gives you exposure to sun light which improves sleep at night and vitamin 'D' to your bones.
- Take time every day to laugh, as laughter is best medicine.



Indoor Activities

- **Board Games:** If you do have a companion, whether it is a friend, neighbour or grandchild, playing ludo, carom, chess and cards is a good idea.
- **Puzzles:** A regular feature in the newspaper everyday, puzzles have a capacity to involve you for hours together as they can be very addictive.



Yoga

- Yoga is a great introduction to physical activity.
- It offers gentle stretching that can alleviate muscle pain, tension and stiffness.
- Yoga improves the blood supply to vital organs, detoxifying your system.
- 'Pranayam' is of particular importance in old age as it enhances the oxygenation of body tissues.
- Yoga along with meditation is known to help achieving a harmonious equilibrium between the mind and body.
- Older people with mobility issues or serious heart and lung disease need to modify yoga 'asanas' in consultation with trained yoga teachers.



Outdoor Activities

- You can go for outdoor activities like gardening, travelling, etc.
- Gardening makes your brain release mood-boosting chemical that can help calm your anxiety.
- Besides, you will get some exercise and spend time outdoors.
- Spending time outdoors offers access to the sun's natural vitamin D which is a powerful weapon in the fight against osteoporosis.



Travelling



- Retirement offers a great time to travel if you are in reasonable good health.
- Visit places you always wanted to.
- A number of organizations like 'Varisth Nagrik Manch' offer senior specific travel opportunities and tours. Avail this opportunity.
- Seniors with health issues can also travel; for example, a road trip to a district park, museum, zoo, or places that interest you.

Sports

- Out door sports badminton, tennis, golf or any other that may interest you, are good exercise.
- It can also be recreation. It also gives you an excellent opportunity to meet other people and socialize.



Arts And Crafts

If you have mastered a craft such as knitting, painting, wood working, etc you can revitalize your interest in that. You will feel more relevant and useful. You should also engage yourself in simple household activities.



Maintain a Healthy Weight

- Extra weight is a health hazard. It increases the risk of heart disease, high blood pressure, diabetes, backache, varicose veins and arthritis. It also makes it difficult to undertake exercise.
- You can find out if your weight is healthy for your height using the body mass index (BMI). It is calculated by dividing your weight (in kilograms) by square of the height (in meter). Any value between 18.5 and 22.9 is healthy and normal. Lower values indicate malnutrition and higher values are suggestive of overweight and obesity.
- In absence of rare diseases, over weight and obesity is a result of excess food intake than what is required and inadequate exercise.
- If you want to lose weight the emphasis should be on cutting back on diet comprising of sugar or fat and increasing protein and fibres.
- Remember it is not healthy to be underweight either!



Stop Smoking

- Older adults who continue to smoke have more difficulty with diseases common to old age, such as heart disease, asthma and bronchitis; cancer and pneumonia.
- It is never too late to give up smoking. Quitting is good and beneficial in all ages.
- Quitting improves life expectancy and overall well being. Your breathing will become easier, the function of your heart will improve, and you will reduce the risk of developing diseases which can restrict your mobility.
- Quitting smoking is difficult and requires concerted effort. It requires individual determination, counselling and use of medication like nicotine. This modification needs to be used with caution in older persons with heart disease.
- Use of mobile telephone health service under “**mCessation**” programme of Government of India can be helpful. You can register in the initiative by giving a missed call to ‘011-22901701’.



04 Personal hygiene



Health and hygiene go hand in hand and are important at all ages. Good hygiene is very important for maintaining physical health. Seniors need to maintain good hygiene to keep healthy and remain independent. Besides looking good, you will also feel good. It may become harder to keep up good hygiene as you age. However, with careful attention it is possible.

Here are the good tips for good personal hygiene

- **Hand washing** – Hand washing before and after meals and before handling or preparing meals should become a habit. Also, wash your hands after:
 - using the toilet
 - touching rubbish/waste bin
 - touching your nose, ears, teeth or hair; and
 - coughing or sneezing
- Taking care of your teeth and gums
- **Bathing** – Take bath every day. If there is a problem in taking bath, use safety chairs. They make bathing easier and safer.
- Wearing neat and clean clothes every day. Torn clothes should be repaired and replaced.



Hair care

Wash your hair regularly. Keep it neat and tidy by combing.

Skin and nail care

Healthy skin is a great defence against infection. Nails should be short and clean.



Foot Care:

Foot problems are common in old age.

- Check your feet regularly.
- To prevent infection, keep the feet, especially the area between the toes and fingers clean and dry.
- Diabetics are particularly prone to sores and infections on their feet. They should avoid extremely cold or hot bath water, keep their feet clean and dry and avoid stepping on sharp surfaces.



How to wash your hands?

- Wet your hands thoroughly.
- Apply soap.
- Rub the palms together vigorously for at least 15 seconds.
- Rub the fingers, thumbs and wrists.
- Rinse until all traces of soap have been washed away.
- Dry thoroughly with a clean towel.

05 Healthy diet



Older people have less energy and strength than when they were younger. They will even become weaker if they do not eat well. If you eat well you are likely to feel healthier, stay active for longer and protect yourself against illnesses.

It is important to understand that many disease processes can be prevented by taking healthy and balanced diet. Heart disease, high blood pressure, diabetes, strokes, high cholesterol, osteoporosis, and visual problems are examples of conditions which can be impacted by diet. To keep well, good regular eating patterns are essential. Instead of missing meals, you could include some of the simple snacks.

You should always eat breakfast, lunch (mid-day meal), evening snacks and dinner. This means three meals and snacks in the evening. Food should be a pleasure, rather than a source of anxiety. Eat as if the food you are eating is a source of energy. Healthy eating is about making correct choices and including foods from all food groups in every meal. There is famous adage, “You are what you eat”.

Food Groups



Energy-giving-foods
(Carbohydrate rich food like
Rice, Grains & Cereals etc.)



Body-building-foods
(Protein rich Food like
Pulses, nuts, eggs etc.)



Protective-foods
(Foods rich in antioxidant
like fresh fruits, green
leafy vegetable etc.)

- **Milk and other Dairy Products:** Choose three servings of milk or milk products (curd, cottage cheese, buttermilk, etc.) per day. These foods contain calcium which keeps bones strong.
- **Use whole grains instead of refined cereals:** Whole grains delay early absorption of fats and carbohydrates.
- Carbohydrates in food provide the body with energy. Their high fiber content reduces glucose and fat in blood and increase the bulk of food residue for bowel movement.
- **Add proteins to every major meal:** After water, proteins are the largest component of our body. Protein intake is essential for preserving muscle mass. Proteins are present in all animal source foods like meat, fish, poultry and eggs. For vegetarians, pulses, milk and milk products; cottage cheese, beans, lentils, pulses and nuts are major sources of protein.
- **Fruits:** Try to eat at least one piece of fresh fruit (banana, apple, an orange) every day. They are rich sources of vitamins and electrolytes. Most fruits are rich in potassium and should be eaten with caution in presence of kidney disease.
- Packed fruit juices often contain added sugar and can give a lot of unwanted calories.
- Diabetics should eat fruits in between meals so that their blood sugar remains at a constant level. Fruits low in sugar content, namely, guava, apple, papaya, etc. should be taken.





- **Vegetables:** These are main sources of fibre and give your food a variety. Aim to have at least three servings of vegetables every day.
- Fruits and vegetables being rich in antioxidants (an antioxidant is a substance such as vitamin C or E that helps in removing dangerous molecules, etc.) help delaying ageing.
- Fruits and vegetables should be washed thoroughly under running water before eating or cooking.
- **Breads, cereals:** Try to have a serving of bread, rice or chapattis with each meal. These foods, together with liquids, can help prevent constipation.
- **Biscuits and sweets:** These foods are enjoyable, but they can lead to weight gain. Reduce bakery items (cake, pastry, bun, rusk) which are rich in trans fats.
- **Drinks:** At least one and a half to two liters of fluid comprising of tea, coffee, fruit juice, milk and water should be taken daily. However, in presence of heart and kidney disease fluid may have to be restricted as per doctor's advice.
- **Dry fruits and nuts:** A few almonds and walnuts a day will protect your heart and body.
- Eating in company can increase your enjoyment of food.
- If you are losing weight without any apparent reasons, you must see your doctor.



Some Good Food Rules

- Eat balanced diet. The greater the variety in the diet, the greater the likelihood of attaining a good balance.
- There is no one food you must have. If you dislike something choose something else which will be equally nourishing.
- Some foods are better for you than others. Try to avoid foods which give you very little value (nourishment) for your money.
- Eat smaller quantities, but enough to satisfy your appetite.
- Chew your food slowly and thoroughly.
- Never eat when not hungry, stop eating the moment you feel full.
- Reduce the amount of added salt.
- Cut down on added sugar. Opt for low-calorie desserts-fruit is always the better choice.
- Try to drink enough water if there is no medical restriction.



Malnutrition

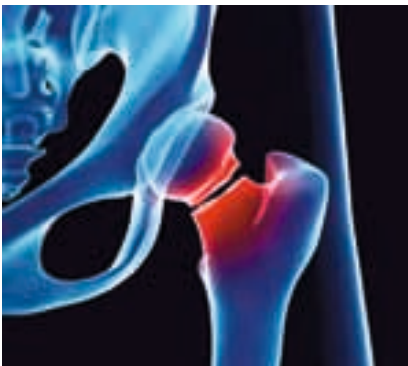
Malnutrition in old people is often under-diagnosed and can lead to other health issues, such as weakened immune system and muscle weakness. The causes of malnutrition can be due to other health problems such as suffering from dementia, depression, alcoholism, reduced social contact, etc. Small changes in diet, such as increasing consumption of fruits and vegetables and decreasing consumption of saturated fat and salt, can improve nutrition in old age.

06 Healthy bones



Bones are living tissues changing constantly with the formation of new bones and loss of old bones throughout our life. To remain mobile and self-dependent, we need to keep our bones healthy by protecting them from disease. Bones continue to grow in strength until the age of about 35 years, when old bones start to lose at a faster rate than new bones can be formed to replace them. In some men, and more frequently women, this bone loss is very severe. Their bones become weak, fragile and liable to break easily. This condition is known as osteoporosis.

Avoiding fractures



One in four women and one in eight men over 60 years of age suffers a fracture due to osteoporosis. Bones at the risk of fracture are hip, spine, wrist and ribs. Women are at a much higher risk because during and after the menopause they experience rapid bone-loss following reduction in female hormone oestrogen. Apart from causing pain, fractures can make independent living difficult and may cause long-term problems with mobility. There are some simple measures one can take to prevent fractures.



Diet rich with calcium and vitamin D

Adequate intake of calcium and vitamin 'D' is essential to maintain bone health, particularly as you grow older. The rich sources of calcium and vitamin 'D' are: milk and milk products (curd, cheese, etc.) beans, spinach, nuts, and dried fruits. To ensure an assured supply of vitamin 'D' and calcium, older people can consume calcium tablets available in the market: 500mg for men and 1000mg for women. Adequate exposure to sunlight is advised, as it is a good source of vitamin 'D'.

Healthy lifestyle

- Exercise strengthens muscles around the bones. Regular brisk-walking will help keep your bones healthy. It also improves your balance and co-ordination and prevents falls.
- Smoking cigarettes can cause bones to become thinner and weaker. Stopping smoking can reduce this risk.
- Alcohol, excess intake of tea, coffee and cola drinks are also harmful to bones and must be avoided.
- If you have suffered a fracture or have developed backache, loss of height or a stoop, you may have fragile bones or osteoporosis. Osteoporosis is treatable. It is better to talk to your doctor to be assessed for the condition and advice on suitable treatment.

07

Falls and accidents



Falls and accidents do not “just happen”. Most of the times, the situation for an accident waits to happen and thus can be prevented. Falls have disastrous consequences in old age. They cause injury, fracture and limit one's ability to lead an active, independent life. Thousands of older men and women are disabled, often permanently, due to falls that lead to fractures. Even the fear of fall can be equally disabling psychologically.

Causes of fall in old age

- Changes in vision, hearing, muscle strength, co-ordination and reflexes make older people vulnerable to falls.
- Diseases of the heart, brain, bones and joints, thyroid and diabetes may affect the balance and gait. Multiple drugs for these illnesses can also result in dizziness, blackouts and falls.
- Most falls occur in bedroom and bathroom due to lack of proper lighting, slippery floors, books and papers on the floor and minor obstacles in the environment.

Prevention of falls and accidents: There are several simple steps which can reduce the likelihood of falls and accidents and make our home and environment safe.

- Have your vision and hearing tested regularly and corrected as far as possible if defective.
- A simple intervention like removal of ear wax can improve your gait and balance. Correct spectacles have similar values.
- Discuss with your doctor regarding the effects of the medicines you are taking and whether they affect your co-ordination or balance. Ask her to suggest ways to reduce the possibilities of falling.



- Alcohol can affect the balance and reflexes; therefore limit alcohol intake, especially before driving.
- Be careful while getting up too quickly after eating, waking up from sleep, lying down, or resting for long periods. The blood pressure may decline rapidly and cause dizziness and fall.
- Use a cane, walking stick, or walker to help maintain balance on uneven or unfamiliar ground if feel dizzy.
- Wear supportive, rubber-soled, low heeled shoes. Avoid wearing smooth-soled shoes or slippers on stairs or slippery floors.
- Maintain a regular programme of exercise. Regular physical activity improves strength and muscle tone, which will help in moving about more easily by keeping the joints, tendons and ligaments more flexible. Mild weight-bearing activities (for example, walking) may even reduce the loss of bone due to osteoporosis.



It is important to have a look at your home to make it as safe as possible.

Some simple, practical steps you could take are:

- Good lighting in staircases, corridors and bathrooms.
- Easily reached light switches, telephones and objects of everyday use.
- Handrails and grab bars in staircase and bathroom.
- Properly designed floor in bathroom to prevent accumulation of water.
- Electrical cords and telephone wires placed out of walking paths.
- Furniture and other objects so arranged that they do not obstruct the way.
- Beds and chairs at proper height to get into and out of easily.
- Outdoor steps and walkways in good condition.
- Regular vision tests will ensure that your sight is adequate.

Burns

Burns are common in older people. These are very disabling in the aged whose recovery is extremely slow. Risk of burns can be reduced by some simple measures:

- Never smoke in bed or when drowsy.
- When cooking, do not wear loosely fitting flammable clothing.
- Check the temperature of hot water before using it.

Motor vehicle accidents

These accidents are among the common causes of accidental death in older persons. The ability to drive may be impaired by age-related changes, such as:

- increased sensitivity to glare.
- poorer adaptation to darkness.
- diminished co-ordination.
- slower reaction time.

These impairments can be compensated by: driving at slower speed, driving less often, and avoiding driving at night and during rush hours.

While using public transportation

- Remain alert and brace yourself against something when bus is slowing down or turning.
- Watch for slippery pavement and other hazards when entering or leaving a vehicle.
- Have the fare ready to prevent losing your balance while fumbling for change.
- Do not carry too many packages, and leave one hand free to grasp the railings.
- Cross the road slowly and carefully, preferably at an authorized crossing.
- Allow extra time to cross streets, especially in bad weather.
- At night wear light-coloured clothing and carry a flashlight.



08

Oral health care



Oral health is an important issue for older people. Loss of teeth, cavities and gum disease affect chewing and eating food can lead to malnutrition. Good oral hygiene helps to prevent dental problems. Here are tips for good oral health care:

- Teeth should be brushed twice a day, once just before bed and once first thing in the morning, before you have had anything to eat or drink.
- Use a soft or medium tooth brush. The hard bristles of a firm toothbrush can damage gums.
- Fluoride-containing toothpaste prevent dental decay.
- Tooth brush should be brushed in a circular and short back-and forth strokes, taking special care to brush carefully along the gum line for two minutes.
- Lightly brushing your tongue also helps to remove plaque and food debris and makes your mouth feel fresh.

Gum disease or Periodontitis

Periodontitis is inflammation of gums. This leads to soreness and swelling of gums, foul breath and in long run teeth fall out. This is one of the commonest causes of tooth loss in advancing years. It is usually due to the build-up of plaque. To prevent gum disease it is important to remove plaque thoroughly by brushing your teeth each day. Also, by carefully checking your teeth and gums, you may find early signs such as, swollen or bleeding gums. You should have regular dental check up with your dentist. A dentist can detect a build-up of plaque. Early or mild gingivitis can be detected and treated to prevent the more severe periodontitis.

Dry Mouth

It is common problem in many older persons. It makes you feel thirsty or feel the need to sip liquids frequently. Dry mouth is usually caused by salivary glands failing to function properly. This can be a side effect of several medications; especially those used for neurological diseases.

Dry mouth affects chewing, swallowing, tasting and speaking. It can affect oral health by contributing to tooth decay and gum disease. To relieve dry mouth:

- rinse your mouth with salt water in the morning;
- drink extra water;
- avoid: sugary snacks, drinks containing caffeine, tobacco and alcohol; and
- consult your doctor to find out the culprit medication.

Denture (artificial teeth) care

It is important for both the health of your dentures and mouth.

- **Handle dentures with great care:** To avoid accidentally dropping them, stand over a folded towel or a full sink of water when handling them.
- **Brush and rinse dentures daily:** Like natural teeth, dentures must be brushed daily to remove food and plaque. Brushing also helps prevent the development of permanent stains on the dentures. Use a brush with soft bristles that is specifically designed for cleaning dentures. Avoid using a hard-bristled brush as it can damage dentures. Gently brush all surfaces of the denture. In between brushing, rinse dentures after every meal.
- **Clean with a denture cleaner:** Hand soap or mild dish washing liquid can be used for cleaning dentures. Household cleansers and some tooth pastes can be too rough for dentures and should not be used. Also, avoid using bleach, as this may whiten the pink portion of the denture.



- Take proper care of dentures when not wearing them. Dentures need to be kept moist when not being worn so they do not dry out or lose their shape. When not worn, dentures should be placed in a denture-cleansing liquid or in water.
- Partial dentures should be cared for in the same way as full dentures. Because bacteria tend to collect under the clasp of partial dentures, it is especially important that this area be cleaned thoroughly.
- Dentures need to be replaced or readjusted to the changes in the tissues of the mouth that may have occurred over time. Do not try to repair dentures at home as this can damage the dentures and injure the tissues of the mouth. Be sure to contact your dentist if a denture breaks, cracks, or if one of the teeth becomes loose.

Dental implants

These are designed to look like teeth and are surgically inserted through the gum surface to rest on or within the bone of the jaw. Implants are useful only for patients with enough bone structure. As it requires a certain degree of expertise you should contact a dental specialist.



How often should you see the dentist if you have dentures?

Six monthly visits should be the norm. Regular dental visits are important so that dentures and mouth can be examined to ensure fitness of denture; and look for signs of oral disease and cancer.



09

Good sleep



Sleep disorders in old age

Few things in life are as desirable as a good night's sleep. It recharges your brain and boosts mood and spirit. You are less likely to be anxious and irritable, if you get good sleep. Many older people find night-time as the worst part of the day. Sleep disorders are fairly common in the elderly. The sleep pattern changes as we grow old. The duration of sleep is shorter and the quality of sleep also becomes poorer. Older people may:

- have trouble in falling asleep;
- wake up frequently in the night;
- get up early in the morning;
- have disturbed sleep as a result of mental and physical illness.
- The normal sleep cycle consists of two patterns: dreaming and light sleep; and deep sleep. Everyone has about four to five cycles of each of these two patterns of sleep every night. For older persons, the amount of time spent in the deepest stages of sleep decreases.
- With age, many people get insomnia. It includes taking a long time (more than 30 to 45 minutes) to fall asleep or waking up many times during the night, or waking up early and inability to get back to sleep.
- With rare exception, insomnia is a symptom of a problem, not the problem itself. This can lead to health concerns like increased risk for falling and daytime fatigue.

How to get a Good Night's Sleep?

Getting a good night's sleep can make a big difference in quality of life. Sleep hygiene or key to good sleep lies in the following steps.

- Develop a bedtime routine. Go to bed and wake up at the same time.
- Although the amount of sleep each person needs varies widely, on an average seven to eight hours of sleep is required every night.
- Moderate physical activity before bed time may improve sleep.
- Take night meal at least two hours before going to bed.
- Get some exposure to natural sun light in day time.
- Avoid drinking tea or coffee late in the evening and if you like a drink before bed, a glass of warm milk may help.
- Alcohol and smoking can make it harder to get sleep.
- Avoid watching TV or working on computer or mobile before going to bed.
- The sleeping room should be dark, well-ventilated and quiet.
- A lamp that is easy to turn on by the bedside may be helpful.
- Try not to worry about your sleep.
- Try not to think about any serious issue while going to bed.

10

How to maintain better sight



As we age, our sight deteriorates steadily and almost everyone over the age of 60 years may need spectacles. There are also certain diseases which affect the vision in old age. With regular sight tests, suitable spectacles, surgery, drugs and special visual aids, most people can maintain a good sight and lead a full and independent life.

Regular sight tests

- A sight test is not just a 'spectacles' test but a check-up of the health of one's eyes. If one has developed a new eye disease, it can be detected early. It is therefore very important to get the sight tested regularly.
- It is recommended that one should have a sight test done at least once every two years and more frequently if one notices any change in one's vision.
- Sight test is a specialized test and is carried out by ophthalmologists (doctors specializing in eye care) or optometrists (ophthalmic opticians).
- If one's sight test reveals any abnormality that needs further treatment and investigation, that should be got done without delay.



Spectacles and other low-vision aids

- It is always advisable to use made-to-order spectacles which suit one's needs best. Now-a-days ready-made reading spectacles are also available. Though they may not harm one's eyes, ready-made spectacles can cause eye strain and headaches.
- Remember to keep your spectacles clean.
- Never place spectacles with the front of the lens facing down on a surface which may cause scratches. Scratched lenses can cause glare and reduce clear vision.
- If you find it difficult to perform your tasks, you can use magnifier. It makes things look bigger so that you can perform tasks easily.

Adequate lighting

- The amount of light the eyes need at 60 years of age is about three times more than that requires at 20 years.
- Natural day light must be allowed to enter your home unhindered.
- You should ensure that there is adequate electric lighting in all parts of your home including stair case and toilets.
- For reading or close work, make sure that you have direct light coming from behind on to your book or work. Florescence lamps are particularly efficient as they produce a lot of light but very little heat.

Common age-related eye diseases

Eye problems and diseases are common in old age. Some of them cause progressive loss of vision. Among them cataract, diabetic retinopathy, glaucoma and age-related macular degeneration are very common. In addition; presbyopia, change in refractive power of spectacles, dry eye, itching of eye etc are also common in old age, which do

not lead to blindness. Many eye diseases have no early signs or symptoms, but regular eye check up can detect eye diseases in early stages before vision loss occurs. Early detection and treatment can help you save your sight.



11

How to ensure good hearing



Hearing tends to deteriorate naturally as we grow old. It may not be noticeable until about 60- 65 years of age or so. Nearly 60 percent of people over the age of 60 years may have hearing deficit due to the ageing process. Hearing loss occurs gradually with age (presbycusis). Most commonly it is caused by the changes in the inner ear. The following factors contribute to the age-related hearing loss:

- Familial tendency or heredity
- Repeated exposure to loud noises
- Smoking
- Certain medical conditions, such as diabetes
- Some medicines, such as chemotherapy drugs can damage the inner ear
- Diseases such as ear infections

Here is a checklist to help you assess your hearing

- Does your family complain that TV/ Radio sound is too loud?
- Do you sometimes wish people would speak clearly and stop mumbling?
- Do you ever miss your name being called?
- Do you sometimes misunderstand what people say to you?
- Do you often find yourself asking people to repeat things?

- Do you find it difficult to hear at social gatherings, in places of worship, or when there is some background noise?
- Do you ever have difficulty hearing the doorbell or telephone?

If your answer is 'yes' to any of the above questions, you need to consult your doctor and explain your concern about hearing.



There could be many different reasons why you are not hearing as well as you used to. Your doctor will examine your ears; ask you a few questions to find out what the problem is. For example, you may have wax in ears which can be removed, or an infection which can be treated. However, when there is no obvious cause, you need to see an ear, nose and throat (ENT) specialist. If hearing loss is simply due to your age, the specialist will explain that there is no 'cure', and will probably advise you using a hearing aid. Do try one. It is likely to be helpful.



12

Managing Medicines



Drugs and medicines are a part of life. In advancing years the need for medicines, often more than one, increases and there is need to take extra care with medicines. Here is some guidance in managing your medicines:

Dose

Take extra care not to exceed the recommended dose of medicine.

Names of Medicines

- Most medicines have two names. Brand name or trade name is the name given to a medicine by its manufacturer whereas the approved name or the pharmacological name is the name of its ingredients.
- It does not matter what particular brand of medicine is used; however, it is better to keep the brand unchanged.
- Whenever you buy a new medicine always check its approved name so that you avoid ingredients that you may already be taking.

Reducing side-effects

- There is no medicine which is free of side-effects, while side-effects are not necessarily bound to happen. Taking some precautions can reduce the likelihood of a drug side-effect.
- If you experience symptoms that you think might be due to medicines, it is always better to get in touch with your doctor.

- Stomach upsets can be reduced if medicines are taken with food unless specifically indicated otherwise. It may however be made clear here that it may be worth tolerating a little stomach discomfort to make sure that a medicine is as effective as possible.
- Certain side-effects can be avoided by slight adjustment of dose and route of administration.

Safe-keeping

- Never share medicines.
- Always keep medicines from out of reach of children.
- Medicines need to be stored in a cool and dry place for longer life.

Use Before Expiry

- Like foods, all medicines have a limited shelf-life. So it is best to get in small quantities.
- Make sure that medicines are not used after their 'use by' or 'expiry' date.
- Creams and ointments usually have the date marked at the end of the tube.
- If you cannot find a date on the medicine container, then, as a rule of thumb, do not keep tablets or capsules for longer than a year.
- You can avoid using 'out of date' medicines by destroying them when they are no longer needed. Do not hold on to them for a 'rainy day'.



Remembering Medicines

- Remembering to take medicines is sometimes difficult. Organize the medicine time so that they suit you best.
- Meal times are often a good time to take medicines because you are likely to have water ready at hand.
- If the instructions on the label tell you to take the medicine on an empty stomach, then you should try to take the medicine at least one hour before a meal.



Drops, creams and inhalers

- Eye, ear and nose drops should be treated the same way as tablets and capsules as these can also give rise to side-effects.
- Once an eye drop container is opened, it should be used for no longer than a month. Never share your drops with anyone else.
- Try not to touch the eye when putting in drops. Avoid touching of the dropper tip with any surface as it may contaminate the drug.
- Creams and ointments are also medicines and should also be handled with care. Always wash your hands before and after using a cream or ointment
- Inhalers are a modern system of delivering the medicine as a fine mist into lungs to help breathing. Coordinating the pressing of the puffer and breathing in at the right time is often not easy. Many people never manage to get the correct dose of medicine.
- Alternatively, you could use a spacer with the inhaler which is much easier to operate. Always check with your doctor that you are using the inhaler correctly.



Repeat Prescriptions

- If you are taking medicines regularly, you may repeat prescriptions without seeing the doctor.
- It is necessary to make sure that you still see your doctor at regular intervals as you may no longer need a medicine or the dose may need adjusting. Also make sure that you are not taking medicines unnecessarily.
- If you think that you may have experienced side-effects you should mention this to your doctor even if it seems trivial.
- It is easy to forget to ask the doctor about things like this, so it may help to write down the questions you want to ask during the consultation.



Summary of DOs and DON'Ts

- ✓ Take medicines with food or just after (unless told otherwise).
- ✓ Check the ingredients to avoid duplication.
- ✓ Do stick to the same brands of medicine in repeat prescriptions.
- ✓ Do see your doctor regularly to avoid unnecessary medicines.
- ✓ Ensure understanding of the directions for drug use.
- ✗ Never take more than the dose stated on the label of medicine or advised by your doctor.
- ✗ Never share your medicines with anyone else.
- ✗ Never hoard medicines you no longer need.

13

How to live alone happily



Living alone in old age is a reality. A large number of older people live alone and their numbers are increasing. Living alone for most people means being at home without anyone else. Some people outlive their spouses, and children may migrate for economic reasons. Some people are happy living alone but some become lonely and isolated. Living alone can be risky in case of illness. If you live alone, and want to stay where you are, certain changes can make your life easier and safer as you grow older. Here are some points that you should consider:

Safety & Security

- Your home should have adequate basic security such as door and window locks, magic eye, door safety chain, house alarm, CCTV, and strong iron grills.
- Don't keep unverified domestic help, talk wealth before domestic help, let visitors stay with domestic help and do not allow entry to unverified strangers.
- Be careful enough while answering any call over the door. Use security gadgets and sensors.
- Register yourself with the local police station.
- You should have a telephone/mobile. If you do not have it, have one.
- Always keep Cell Phone with You.
- Have readily available emergency contact number of police, doctor and fire department.

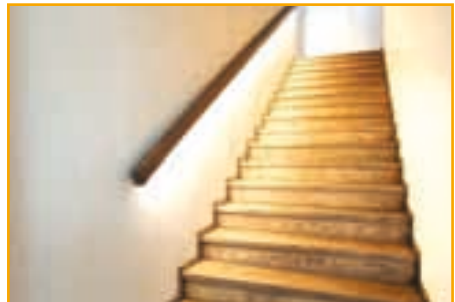
- Addresses and mobile numbers of your doctor and close relatives should be placed at a prominent place so that people know whom to contact in an emergency.
- In an emergency, the best people who help (and who may need your help) are your neighbours. So try to maintain contact with them. If you arrange a daily phone call or quick visit to or from someone nearby, they will know when something is amiss. Be sure to let them know if you plan to be away.

Whenever you go out, keep the following documents in your pocket

- Your identity card.
- Contact numbers of your near and dear ones.
- Your emergency medicines.

Make home safe

- Falls in the home are a common cause of injury among older people. So, it is important to take a look at your home to make it as safe as possible:
 - Place handrails in staircase, bathroom and toilet.
 - Ensure proper lighting.
 - Ensure that environment outside the home is clean and cleared of obstacles.
- Keep a stock of basic foods for emergency. It should be enough to last for a few days.



Connect with people

- Start connecting with old friends, make new friends.
- Join senior citizens forum etc.
- Join a social cause that you care about.
- Connect with young students in the community by helping them in their studies if you can.



Participate in social media

- Facebook and YouTube are two of the most-visited sites by senior citizens. It is a good way for you to connect with your family members and friends. It is also a wonderful way to learn about all sorts of interesting things. Twitter is another popular site through which you can communicate to your loved ones.
- Pursue your hobbies or take up a new one.
- Learn religious topics of your interest.
- Learn to play musical instrument.

14

How to deal with worries and anxiety



Worries and anxieties are common in the elderly. They impact on quality of life by limiting their daily activities and affect sleep. Worries, anxieties and fears are emotions which are triggered by an unpleasant event. They influence our thoughts and actions for hours and even for days till the event is forgotten. These emotions also result from unpleasant information, memories and unfulfilled expectations.

Here are some tips to get over your worries and anxieties

- Confront anxiety by identifying its cause.
- Worries and anxieties result from unrealistic and harsh expectations. Think of a rational and objective answer to the problem that is worrying you.
- Translate your worries and fears into clear words.
- Divide your worries into two categories:
 - (i) those that can be influenced; and
 - (ii) those that cannot be influenced.
- Concentrate on those problems which you can influence and let the others go.
- Accept that you cannot control everything.
- Maintain positive attitude. Make an effort to replace negative thoughts with positive ones.

Try to relax

- When you feel yourself worried or anxious try to relax yourself by
 - Meditation. It helps you focus on your breath and keep your mind free of thoughts. When a concern sneaks in, you try to dismiss it quietly and clear your head.



- Taking several deep breaths. Sit straight and breath in slowly and deeply. It will help you to relax and de-stress.
- Doing some easy physical exercises. Exercise can help you feel good and maintain your health.
- Talking to your close friends or relatives about your worries and fears.
- Shut your eyes and listen to a piece of music.

Take professional help

If self-help techniques do not work consider seeking professional counselling. A trained professional can help you identify and mitigate your anxiety.

- Medicines are also available to lessen your anxiety.
- Finally, if you are a believer, pray to God for strength to:
 - accept the things that you cannot change,
 - have courage to change the things that you can, and
 - have the wisdom to know the difference.





15

Detoxification of the Human* Body by Natural Methods

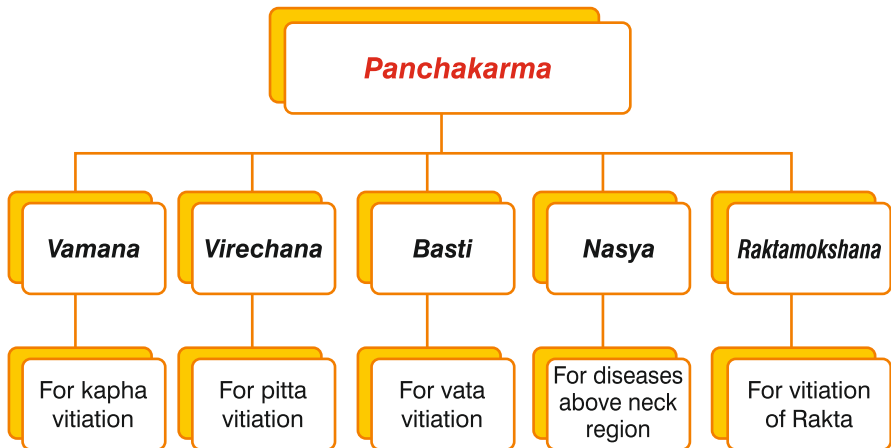
Detoxification is process of elimination of toxins from body by adopting special diet, special therapies or specially designed treatment procedures like induced emesis, purgation, etc. Before going in details of these procedures, one has to understand that there is physiological (natural) process of elimination of metabolic waste products from the body. Considering this fact for the removal of waste products from body, non-invasive techniques for detoxification are used in Ayurveda treatment.

Ayurveda has described Langhana i.e. methods which give feeling of lightness in body. Fasting is the first step to help body to allow to detox naturally. Adequate fasting helps in improving the body metabolism and restore balance of physiological forces. If absolute fast is not possible, one can have only hot water for a day or two depending upon the status of person. This should be followed by only hot soup, or rice water and there after gradually increasing the intake. Inducing sweat by steam bath, sun bath etc. also is a part of detoxification. Certain herbs and food substances like ginger powder, *punarnava* etc. also help in detoxification.

In some conditions, simple measures of detoxification mentioned above are not sufficient. They may require active expulsion of toxins out of body. They are called as *Shodhana* procedures. There are five main methods for *Shodhana*. viz.

- **Vamana** (therapeutically induced emesis),
- **Virechana** (therapeutically induced purgation),
- **Basti** (Medicated enema),
- **Nasya** (nasal instillation of medicine), and
- **Raktamokshana** (bloodletting).

Collectively these five procedures are known as **Panchakarma** in Ayurveda (“**Pancha**”- means five and “**karma**” means procedure). These detoxification techniques not only remove accumulated toxins from the tissues but also help in rejuvenation and act as anti-ageing therapy. Accumulated toxins cause oxidative stress and fasten the ageing process through free radicals that cause cellular damage.



A brief description of these procedures is given below-

1. *Vamana Karma* (Therapeutically induced Emesis)

Vamana Karma means to induce therapeutic vomiting or to expel out the vitiated *Doshas* (toxins) through oral route, which is indicated for the bio-cleansing of upper part of the body. It is specially designed to remove vitiated kapha and Pitta Dosha from the body. It is mainly indicated in conditions like upper respiratory tract infections, Br. asthma, allergic rhinitis, obesity, dyslipidemia, dyspepsia, skin disorders, etc. In healthy person, it is mainly indicated in spring season for expulsion of naturally vitiated *Kapha dosha*.

Before *Vamana* procedure, *Deepana* and *Pachana* drugs (appetizers and digestives drugs) for about 3 days followed by *Snehapana* (oral administration of medicated ghee) in increasing dose for three to seven days as per the requirement till achieving the signs and symptoms of proper *Snehana* along with oil massage and steaming. After proper conditioning of body, certain herbal formulations are given to the individual to induce emesis. This is done in early morning hours which is the time for *Kapha dosha*.

Vitals of the patient are examined and monitored before during and after procedure. *Vamana karma* should be carried out strictly under the observation of physician. Based on the assessment of *Vamana karma*, physician advises the diet schedule ranging from 3 to 7 days..



2. Virechana (therapeutically induced purgation)

This therapy is the best procedure to naturally rehabilitate gut flora and removing the accumulated toxins from gut. Prime indications of *Virechana* therapy are vitiation of *Pitta dosha* and *Rakta dusti*. Practically *Virechana* can be given in inflammatory conditions where endogenous inflammatory mediators are the pathological hallmarks. *Virechana* helps in cleansing the body by bringing the toxins from all over to the guts and their elimination through purgation. Therefore it is useful in various diseases including the conditions of GI tract, liver, skin diseases, respiratory conditions, systemic illnesses like PCOS, various autoimmune disorders etc.

Classical *Virechana* procedure should be strictly undertaken under the observation of Ayurveda physician. Laxative herbs or mild laxative Ayurvedic formulations can be taken by individuals as self health care. Long term use of purgative medicines should be avoided to avoid dependence.

Virechana also is given after conditioning the body with *Deepana*, *Pachana* medicines and also undergoing *sehana*, *swedana* procedures before administration of *Virechana* drug.

After administration of *Virechana* drug, patient is observed for number of episodes during the day. Vitals of patient are monitored before, during and after procedure. Later, the patient is advised for dietary schedule for 3-7 days.

3. Basti (Medicated Enema)

In Basti treatment the medicated emulsions prepared freshly with medicated ghee/oil, herbal decoction, milk, etc. are administered through rectum. Basti in healthy persons is given usually in monsoon season to prevent vitiation of *Vata*. Basti is useful in regaining normal gut flora now a days called as micro-biome. Gut is also called a second brain. The basti helps in restoring health like the water is absorbed by roots is spread to whole tree.

Basti treatment in Ayurveda is given lot of importance especially for treating musculoskeletal disorders, neurological conditions, gastro-intestinal conditions, genitourinary conditions etc.

The ingredients and type of basti to be given to an individual depends upon his/her physical condition, disease etc. *Basti* is very helpful in elderly patients for improving the rectal muscle tone, bladder muscle tone in diseases like chronic constipation, atonic bladder, irritable bowel syndrome, incontinence of urine, prostate enlargement etc.

Many other supplementary procedures like **Shirobasti** (Retaining medicated oil/ decoction over head for 30-45 minutes), **Janubasti** (retaining the medicated oil/ decoction over knees), etc. are very useful in managing the diseases like, osteoarthritis, lumbar spondylosis, cervical spondylosis, etc.

4. Nasya Karma (Nasal instillation of medicine)

The nose, according to Ayurveda, is the "gateway" to the head. The nasal route for the administration of drugs was widely used in Ayurveda for treating a variety of ailments- mostly of the head, neck, and upper respiratory tract. The underlying principle of nasya is that the medication would work on nervous system by entering in to cranium through innumerable channels and treat vitiated *dosha*.

5. Raktamokshana (bloodletting)

It is used to alleviate the doshas resided in *Rakta dhatu* (i.e. blood). Vitiated blood is removed from affected site by various techniques like *jalaaukavacharan* (leech application), *shrunga*, *alabu* (cupping), *siravedha* (venu-puncture). Rakta mokshana is used only for therapeutic purpose in certain disease conditions like skin diseases, eczema, migraine etc. It is generally not recommended for healthy people.

There are several **contraindications** to all Panchakarma procedures. Therefore, the decision of choice of treatment is taken by Ayurveda physician after assessing the medical condition, pre-existing disease and person. Hence these procedures are to be implemented strictly under supervision of Ayurveda Physician.

Standardization of Panchakarma

The World Health Organization with the support of Ministry of AYUSH is preparing Benchmark standards for Panchakarma Practices. Ministry of AYUSH has published safety guidelines for Panchakarma practices.

Other measures for Detoxification

Rasayana therapy

Rasayana therapy is the process of administering special class of Ayurvedic medicine to rejuvenate body and mind. Usually it is given after proper detoxification to achieve best results. However, it is also practiced without Shodhana. Ayurveda,



the science of life and longevity, is blessed to have the treasure of herbs used for of nourishment of *dhatu*s (various body elements), to increase the immunity and for detoxification of body. Such drugs are known as *Rasayana* drugs. The term *Rasayana* (*Rasa*+*Ayana*) refers to providing or channelizing nourishment for qualitative (and quantitative) development of *Dhatu*s or body tissues which leads in turn to improved physiological state, immunity, strength, mental competence and longevity. Various toxins accumulate in the body leads to early ageing. Therefore, removal and management of these toxins is necessary to remain youthful and healthy.

Following herbs may be used for the *Rasayana* effect and detoxification of the body.

Triphala	Rasayana, digestive, mild purgative
Amalaki	Rasayana, digestive, good for dyspepsia,
Ashawagandha	Rasayana, good for vigour, anti-stress
Guduchi	Rasayana, digestive, immune-modulator
Shatavari	Rasayana, good for vigour
Brahmi	Good for cognitive functions, stress

Following principles can be adopted to impart graceful aging:

1. Keep the **healthy diet and suitable lifestyle** as described by Ayurveda.
2. Oil massage and oil application in ears, nose, head (e.g. primarily sesame oil) has anti aging effect. Hence appropriate/ suitable procedures like **Abhyanga, nasya, karnapoorana, shirodhara, shirobasti, tarpana, padabhyanga** should be adopted by consulting Ayurveda physician.
3. Adequate Sound **sleep and** regular **exercise** are integral part to be healthy and prevent diseases.
4. Regular use of **Rasayana** as advocated by Ayurveda.
5. Follow the principles of Sadvritta and Achara Rasayana i.e. **good social and behavioral conduct** for personal and social well being.
6. *Rasayana* formulations like *Brahma Rasayana, Chyawanaprashavaleha, Amalaki Rasayana* can be taken in consultation with an Ayurvedic physician.
7. *Panchakarma* therapy as mentioned above and certain procedures like *Shirodhara*,

Important Components for Conservation of Good Health



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