

# UNIT IV

## ADULTHOOD

*With the advent of adulthood, the adolescent passes through the portals of what may be termed as the “real world”. One enters the world of higher education, work, and marriage, and gets involved in establishing one’s own family. Hence responsibilities of the individual increase manifold. In this unit you will learn about the major factors that play a role in determining the quality of adult life, these being health and wellness, financial planning and management, maintenance of fabrics and apparel that one uses personally as well as in the home, and appreciation of different perspectives in communication. The unit concludes with a chapter on individual responsibilities and rights, not only for one’s own self, but also in relation to the family and larger society.*



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# 15

## HEALTH AND WELLNESS

### LEARNING OBJECTIVES

After completing this chapter the learner is able to–

- discuss the importance of health and fitness.
- explain the health concerns and challenges of adults.
- describe the concept of wellness.
- describe the steps to promote and maintain good health and wellness in adults.

### 15.1 HEALTH SCENARIO IN INDIA

A cursory glance at the health profile of Indians shows that there is scope for substantial improvement. The World Health Organisation reveals to us the following data as of 2020:

**Total population (millions):** 1,380.00

**Life expectancy at birth:** 70 years

**Mortality Rate under 5 (per 1000 live births):** 34

**Prevalence of underweight, weight for age (% of children under 5):** 33.4

**Source:** World Development Indicators data base

<https://databank.worldbank.org/views/reportwidget.aspx?ReportName=Countryprofile&id=by#50fd57&tbar=y&dd-y&inf=n&zm=n&country=IND>

**Indicators of health status of the Indian population**

*Ophthalmology:* Annual incidence of cataract, the cause of 80 per cent of blindness, is 3.8 million cases.

*Cancer:* The total number of cancer cases in India was estimated at 924,790 in 2001. This is projected to increase to 1,229,968 by 2011 and to 1,557,800 by 2021.

*Cardiovascular diseases:* The mortality rate due to cardiac arrest and related causes was estimated at 2.4 million in 1990. With increasing urbanisation the problem is on the rise.

*Malaria:* Projected to increase from 2.03 million cases in 2001 to 2.62 million cases in 2021.

*Hypertension, diabetes and renal diseases:* These stress and lifestyle related disorders are on the rise. The diabetic population in India is projected to increase from 40 million of 2001 to 47 million people in 2010. Hypertension is lower in rural areas but on an increase in urban cities.

**Source:** *The Investment Information and Credit Rating Agency (ICRA) – Report on Indian Healthcare and Technology Information Forecasting and Assessment Council (TIFAC), Department of Science and Technology (DST), Government of India*

These startling facts on health status in India and the projection that “by 2025, it is likely that one in every five Indians will be diabetic”, highlights the need for every Indian to become aware about health and fitness as important dimensions of their lives. Besides diabetes, the increasing prevalence of heart disease, osteoporosis, infectious/communicable diseases such as hepatitis, tuberculosis, AIDS, etc. have become public health problems and need immediate attention at all stages of life.

It is now recognised that there is a shift in the causes of death (mortality) from infectious and communicable diseases in the past, to non-communicable diseases such as diabetes, heart disease or cancer. Experts estimate that the number of persons having non-communicable diseases will increase in the future and there is an urgent need to address this problem, nationwide and worldwide.

It is important to note that many of these diseases were earlier seen in older persons. However, it is of concern today that many of these diseases are now found to occur in youth and younger adults. Another point of concern is that these diseases are not restricted to upper income families alone. Persons from low income families, especially in urban areas, are prone to these problems. It is stated by health experts that most of these health problems are due to unhealthy diets and lack of physical activity.

Therefore, the world's apex body dealing with health, the World Health Organisation (WHO), has made recommendations to develop a global strategy on diet, physical activity and health. Simultaneously, the Government of India is equally concerned about the increasing health

problems and related issues. As such when diseases increase, there will be tremendous pressure in terms of: (i) providing health care to such persons, (ii) the economic cost to the person and her/his family as well as to the nation, since the government also has to provide health care and treatment facilities for these problems, (iii) adverse impact on the quality of life of such persons, and (iv) promoting and maintaining their health as well as their capacity to function 'normally'.

## 15.2 HEALTHY PERSONS

Healthy persons are those who are physically fit and active, cheerful in their outlook, have adequate immunity against infections and are not easily fatigued. Research has indicated the benefits of healthy diets, physical activity, individual action and population-based public health interventions. Unhealthy diets generally include consumption of energy dense foods (high in sugar and fat). They are also high in salt. Such foods when eaten in higher amounts than what the body requires and coupled with reduced activity levels across all age groups, especially adolescents and adults, increase risk of non-communicable disease. Diet and physical activity both influence health independently as well as together. Physical activity is a fundamental means of improving physical and mental health. There is a tremendous need to increase awareness and promote better lifestyles to prevent people from having health problems. The risk of developing diseases such as diabetes, heart disease and hypertension in youth and adults is higher among individuals who are overweight or obese. Health professionals commonly use anthropometric indicators (body measurements) to assess nutritional status and risk.

A simple indicator is the Body Mass Index (BMI) that is commonly used to classify underweight, overweight and obesity in adults. This index basically tells us whether a person's weight is appropriate for her/his height (i.e., 'weight-for-height'). It is defined as the weight in kilograms divided by the square of the height in metres ( $\text{kg}/\text{m}^2$ ). For example, an adult who weighs 70kg and whose height is 1.75m will have a BMI of 22.9.

$$\text{BMI} = 70 \text{ (kg)} / 1.75^2 \text{ (m}^2\text{)} = 22.9$$

WHO has recommended use of 'cut-off points' for determining whether individuals are underweight, overweight, obese or normal as shown in the Table 1. Thus, if a person's BMI is below 18.5 he/she is classified as underweight. Similarly, cut-off points have been given for three categories 'normal weight', 'overweight' and 'obese' and subcategories within each. For each of these, there is a minimum value and maximum value (a range of values). The health risks are higher as BMI increases because there are

numerous related changes occurring in the body which are detrimental. These include increased body fat (adipose tissue), decreased glucose tolerance, changes in blood cholesterol, etc.

**Table 1: The International Classification of Adult Underweight, Overweight and Obesity according to BMI**

Classification	BMI(kg/m <sup>2</sup> )	
	Principal cut-off points	Additional cut-off points
<b>Underweight</b>	<b>&lt;18.50</b>	<b>&lt;18.50</b>
Severe thinness	<16.00	<16.00
Moderate thinness	16.00 - 16.99	16.00 - 16.99
Mild thinness	17.00 - 18.49	17.00 - 18.49
<b>Normal range</b>	<b>18.50 - 24.99</b>	<b>18.50 - 22.99</b>
		<b>23.00 - 24.99</b>
<b>Overweight</b>	<b>≥25.00</b>	<b>≥25.00</b>
Pre-obese	25.00 - 29.99	25.00 - 27.49
		27.50 - 29.99
<b>Obese</b>	<b>≥30.00</b>	<b>≥30.00</b>
Obese class I	30.00 - 34.99	30.00 - 32.49
		32.50 - 34.99
Obese class II	35.00 - 39.99	35.00 - 37.49
		37.50 - 39.99
Obese class III	≥40.00	≥40.00

**Source:** Adapted from WHO, 1995, WHO, 2000 and WHO 2004.

BMI values are age-independent and the same for both sexes but to some extent may differ in different populations due to genetic, ethnic and racial factors. Among the various ethnic populations, research evidence indicates that Asians have higher risk at the same BMI compared to others. Hence the WHO has found it necessary to further subdivide the categories (as shown in the third column of Table 1).

*Note to Teachers: It is recommended that teachers familiarise themselves with this concept in order to explain it better to the students. Please refer to the notes for teachers at the end of the chapter.*

In order to maintain good health and maintain desirable body weight, the following recommendations have been made by health experts for populations and individuals to achieve energy balance and a healthy weight.

**Do's and Don'ts for health promoting diets****Do's**

- Increase consumption of fruits and vegetables.
- Increase intake of legumes, whole grains and nuts.
- Match energy intake to energy expenditure.
- Use iodised salt.
- Drink plenty of water.

**Don'ts**

- Consume too much fat/oil (butter on bread, ghee on parathas), or fried foods, e.g., *pakodas*, *puris*, *nuts*, *samosas*, etc.
- Consume too much saturated (fats that are solid at room temperature) and trans fats (*vanaspati*).
- Consume too much salt (sodium) from all sources especially processed foods such as wafers, ketchups, sauces, biscuits, pickles, papads, etc.
- Sprinkle salt on cooked food or salad
- Indulge in sweets, chocolates, soft drinks, etc.

## 15.3 FITNESS

Health is promoted not only by appropriate, well balanced diets but also by physical activity and fitness. There was a brief discussion about fitness in Chapter III in Unit I of Part I on Understanding Oneself: Adolescence. Here, the focus will be fitness at adulthood. As the human body advances in age, certain changes take place resulting in various changes including decline in capacities and body functions.

Exercise and some physical activity are of utmost importance for maintenance of physical fitness and to sustain a healthy life as well as to establish a certain quality of life. Regular exercise burns up extra calories consumed and reduces the likelihood of the surplus calories being converted into fat. Regular exercise makes a person fit. Persons who exercise regularly experience a sense of well-being and sleep better. Exercise also makes the heart and lungs work more efficiently, improving circulation and respiration. Exercise carried out for about 20 minutes at least three times a week is beneficial. Older people should undertake exercise regularly so as to prevent and control several of the diseases like obesity, hypertension, diabetes, etc. In fact youth and young adults should begin to take precautionary health regimen to stave off these diseases at a later stage.

**Benefits of exercise in adulthood**

- (i) **Exercise and illness:** Exercise reduces the risk of acute and chronic illness through improving body composition, affecting metabolism

and cardio-respiratory fitness. It decreases disability by improving endurance, muscle mass, muscle strength, agility and flexibility. It helps to prevent and treat common, often difficult-to-treat problems seen among older adults such as depression, insomnia, anorexia, constipation, and cognitive impairment.

Exercising regularly yields specific benefits such as:

- Helps to postpone disability by as much as 15 years. Even inactive persons, once they begin to do small amounts of exercise derive considerable health benefits.
- Lower body exercises help to establish/retrain balance in older adults.
- Helps persons who are overweight/obese to lose weight.
- Helps in maintaining desirable body weight.
- Helps to control blood sugar levels and blood pressure.
- It helps to maintain bone mineral density and thus reduces the risk of fractures and disability especially among the elderly.
- Helps to enhance muscle strength in both upper and lower limbs (training for a couple of months can help to increase strength of our lower limbs)

Exercises can be grouped into three broad categories:

- Endurance building/Aerobic exercise
- Strength building/Resistance exercise
- Promoting balance/Flexibility exercise

The benefits of these exercises are summarised in the box below.

Exercise/Activity	Benefits
Endurance building/aerobic exercise including brisk walking, cycling, swimming, football, tennis, badminton	Builds stamina, improves fitness, helps in weight loss or control, improved cardio-respiratory functions, control of blood sugar, prevents constipation, improves sleep, positive frame of mind. The improvement can be seen after a few weeks of regular, fairly, hard exercise, i.e., 30 minutes of aerobic activity every day. However, the level of fitness soon declines if the exercise regime is abandoned.
Strength building/resistance exercise include exercises such as weight lifting, pushups/levitation and specially designed equipments in a gym.	Increases muscle strength and bone mass, helps to firm up the body and improve posture.
Balance/flexibility involves stretching, loosening up and bending such as stretching, yoga is reported to be beneficial in many other ways, climbing stairs.	Helps muscles and joints to perform their full range of movements with ease, helps to reduce stiffness thus keeping joints flexible. Improves balance, flexibility and mobility.

\* Yoga is reported to be beneficial in many other ways.



## ACTIVITY 1

Pay a visit to a nearby health or fitness or yoga centre or gym and find out from the trainer/teacher or the adult users the benefits of the exercise they do.

There are 1,440 minutes in every day. Schedule 30 of them for physical activity! Make exercising part of the daily routine to ensure wellness in adulthood.

(ii) **Exercise, mental health and well-being:** In addition to the benefits for physical health, there is growing awareness and scientific evidence of its benefits for wellness and mental health. Scientists at Duke University, USA, studied persons suffering from depression for 4 months and found that 60% of the persons who exercised for 30 minutes three times a week, overcame their depression without any medication. Another research study showed that short workouts of 8 minutes could help lower sadness, tension and anger along with improving resistance to disease in healthy people. Many people have found that exercising helps to boost confidence as well as reduce anxiety and stress, all of which contribute to psychological health and well-being. Thus, exercise can be viewed as a wellness activity that prevents physical and mental health problems.

Experts caution that viewing exercise as a punishment can hamper its benefits. On the other hand, exercise should be enjoyed. The physical pain and soreness that one feels in the first few days gradually disappear. In India, yoga and meditation have been traditionally used to achieve mental health and well being. Yogic *asanas* help the body become more flexible. Researchers have shown that yoga also has benefits for conditions such as diabetes and high blood pressure.

During and after exercise, the brain releases substances called endorphins. These are the body's natural painkillers and also increase feelings of happiness and well-being. Today's lifestyles, especially in urban areas and metropolitan cities, are fast paced and more stressful. Hence it is crucial to ensure that every individual takes care of her/his physical and mental health.

In 2002, the World Health Organisation deemed 'Physical Activity' the theme of World Health Day. Since then, April 6th is celebrated as the World Day for Physical Activity. This is an example of a global initiative aimed at promoting health through physical activity across populations.

## 15.4 WHAT IS WELLNESS?

Wellness is a state of optimal well-being. It means achieving balance and harmony in all aspects of our lives. Wellness is achieved through



the integration of physical, social, emotional, intellectual, spiritual and environmental health. It is a proactive, preventive approach designed to achieve optimum levels of functioning. The concept of 'wellness' is a unique perspective that lays emphasis on facilitating health and well-being. It focuses on human strengths as resources for health, rather than dwelling on problems, needs or weaknesses. Promoting wellness is an approach to prevent ill health or dependency on doctors and medicines.

### How does the wellness approach help?

Wellness improves 'Quality of Life' by reducing risk of disease, disability, discomfort and distress throughout the life cycle. It is of paramount importance to promote positive human strengths which in turn can help foster growth and development, harmony and well-being.

The wellness approach requires first and foremost that a person should take responsibility for the quality of one's own life. It begins with a conscious decision to have a healthy lifestyle that will lead to high levels of well-being and life satisfaction.

**Wellness is a choice....** a decision made to achieve optimal health.

**Wellness is a way of life....** a lifestyle that helps a person to reach one's goals and realise one's potential

**Wellness is a process....** a sequence of decisions and behaviours that lead to health, well-being and happiness.

**Wellness is holistic ....** an approach to integrate the body, mind, and spirit with the appreciation that all our beliefs, thoughts, feelings and actions greatly influence us in everyday.

**Wellness is wholehearted acceptance of self situations and circumstances....** with all of one's weaknesses, strengths and challenges

The holistic approach to well-being is described in the diagram that portrays the dimensions/focal areas for a healthy lifestyle.

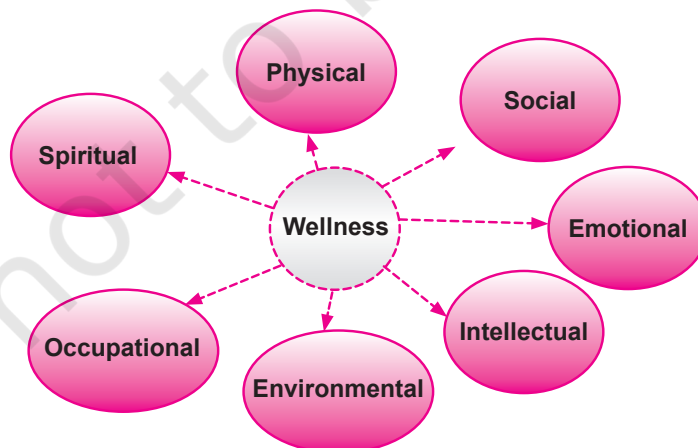


FIGURE 1: DIMENSIONS OF A HEALTHY LIFE STYLE

Wellness has become an important area of research in order to understand it and provide guidelines for practice and promotion. Evidence from numerous studies indicates that persons rated 'high' on the wellness and well-being profile have in common the following qualities:

- High self-esteem, a positive outlook and a sense of purpose
- A strong sense of personal responsibility and commitment
- A good sense of humor
- A concern for others
- A respect for the environment
- A physically fit and an integrated healthy lifestyle
- Absence of addictive behaviours
- A capacity to cope with life's challenges
- An ability to continue to learn
- A capacity to love and an ability to nurture
- An ability for effective communication

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## Dimensions of Wellness

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A 'wellness lifestyle' is associated with good physical health, emotional stability, healthy relationships with family, friends and peers as well as productivity and satisfaction in one's work and workplace.

**Social aspect:** This emphasises the interdependence with others, making friends and having meaningful, happy, satisfying and stable relationships with others. Social wellness promotes the idea that it is helpful to contribute to the common welfare of our community than to think only of ourselves. The basic tenet is that it is better to live in harmony with others and our environment than to live in conflict with them.

**Physical aspect:** This refers to deliberate choices for a life style that includes adequate physical activity, well balanced diets and good fitness regimen that will help to achieve and maintain optimum body health and well being. Making healthy lifestyle choices that affect health and quality of life for the present and future is crucial.

**Intellectual aspect:** This encompasses the extent to which one engages in creative, stimulating mental activities. An active mind is crucial for overall wellness. Being open to new ideas, thinking critically, being creative and curious, and being motivated to master new skills are the keys to intellectual wellness. An 'intellectually well' person uses the resources available to expand his/her knowledge to improve skills along with sharing with others. Benefits include improved job performance, better problem solving, more knowledge and a better chance at being successful in life.

**Occupational aspect:** This is concerned with the satisfaction gained from one's work and how much one feels enriched by the work. The satisfaction gained is related to a person's attitudes about work, the sense of direction and goals, and a feeling of achievement. Achieving personal

satisfaction and enrichment in one's life through work is required for adults to have a sense of comfort and satisfaction in life. Wellness at the workplace is being increasingly focused upon by employers to ensure better employee health, well-being and productivity.

**Emotional aspect:** This is closely related to the degree of awareness and acceptance that one has of one's feelings. It includes the extent to which one feels positive and enthusiastic about one's self and life, the capacity to appropriately handle and express one's emotions (both positive and negative), how one copes with stress as well as being able to realistically assess one's limitations. Emotional well-being allows an individual to recognise, understand, experience and express a full range of emotions. In adulthood particularly; living with chronic illness such as heart disease or cancer has mental health implications.

Stress can affect the individual in several ways—contribute to irritability, heart burn, headaches, heart disease and perhaps cancer. Stress cannot be completely avoided. However, one can learn to cope with stress (see Figure 2 in this chapter). Health promotion activities can positively impact overall health and well-being.

**Spiritual aspect:** This addresses one's continuous involvement in seeking meaning and purpose of life and living, in general in human existence itself. Spirituality generally relates to better mental health, greater well-being and higher quality of life. Physical health and medical outcomes may also be affected. Spirituality can help persons to cope with problems even related to physical health.

**Environmental aspect:** This deals with the interaction and interdependence between humans and the environment. Awareness of the critical role the environment plays in our individual wellbeing and that all human activity affects the environment is required. Environmental degradation and destruction by human beings is jeopardising the availability of natural resources leading to several major problems that will compromise the quality of human life.

**Financial aspect:** This focuses on informed decision-making and learning how to manage financial resources wisely, save, invest, and plan for the future. In a monetised society (a society that functions largely on monetary transactions), adequate financial resources are required to achieve health and well-being. Every person has to work hard and be productive to have sufficient finances, not only at the micro-level, i.e., individual and family, but also at the macro-level, i.e., community, region, state and national levels.

## 15.5 STRESS AND COPING WITH STRESS

Stress is unavoidable in daily life and has both positive and negative connotations in the personal and professional roles. Some stress can

motivate and energise one to perform better and be more efficient. When stress has a positive effect, it is termed 'eustress', when stress adversely affects performance, physical and mental health, it is known as 'distress'. At the simplistic level, any one can assess oneself through the activity given below.

## ACTIVITY 2

Ask yourself the following questions:

- Do I often feel irritated/ anxious/depressed?
- Do I feel tired most of the time without sufficient reason?
- Do I worry too much and hence get tense and not be able to sleep?
- Do I often feel very 'fed up' and over burdened?

If the answer to one or more questions is 'yes', it is likely that the person is stressed. Prolonged stress (chronic stress) can damage the body and lead to diseases such as high blood pressure, obesity, heart attack, decreased immunity among others.

Every human being, young or old, male or female, wealthy or poor, in good or poor health will benefit by learning to cope with stress in order to enhance well-being and improve their quality of life. There are various stress management techniques which are indicated in Figure 2. The decision to use one or more techniques is a matter of individual choice.

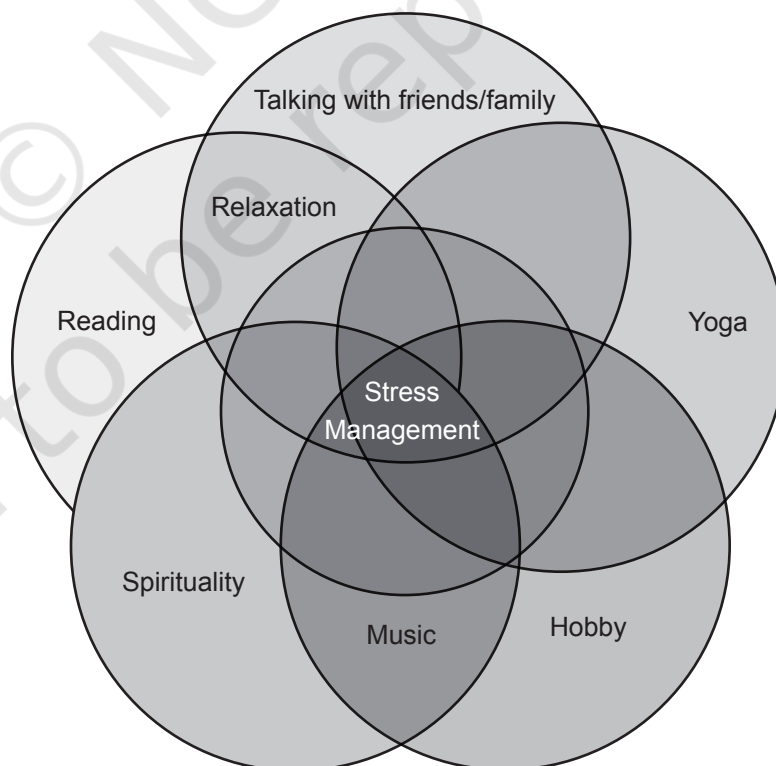


FIGURE 2: SIMPLE TECHNIQUES TO COPE WITH STRESS

Research shows that persons who take care of themselves and manage their lifestyles are healthier, more productive, have fewer absences from work, and make fewer demands for medical services. It is not medical care alone, rather consistent self care which promotes better health and an improved quality of life.

#### **Note for teachers about BMI classification**

*In the recent years, there has been a growing debate on whether there are possible needs for developing different BMI cut-off points for different ethnic groups due to the increasing evidence that the associations between BMI, percentage of body fat, and body fat distribution differ across populations and therefore, the health risks increase below the cut-off point of 25 kg/m<sup>2</sup> that defines overweight in the current WHO classification.*

*There had been two previous attempts to interpret the BMI cut-offs in Asian and Pacific populations, which contributed to the growing debates. Therefore, to shed light on these debates, WHO convened the Expert Consultation on BMI in Asian populations (Singapore, 8-11 July, 2002).*

*The WHO Expert Consultation concluded that the proportion of Asian people with a high risk of type 2 diabetes and cardiovascular disease is substantial at BMI's lower than the existing WHO cut-off point for overweight (= 25 kg/m<sup>2</sup>). However, the cut-off point for observed risk varies from 22 kg/m<sup>2</sup> to 25 kg/m<sup>2</sup> in different Asian populations and for high risk, it varies from 26 kg/m<sup>2</sup> to 31 kg/m<sup>2</sup>. The Consultation, therefore, recommended that the current WHO BMI cut-off points (Table 1) should be retained as the international classification.*

*But the cut-off points of 23, 27.5, 32.5 and 37.5 kg/m<sup>2</sup> are to be added as points for public health action. It was, therefore, recommended that countries should use all categories (i.e., 18.5, 23, 25, 27.5, 30, 32.5 kg/m<sup>2</sup>, and in many populations, 35, 37.5, and 40 kg/m<sup>2</sup>) for reporting purposes, with a view to facilitating international comparisons.*

*This chapter has provided you a fair idea about the importance of good health in adulthood, and the way of maintaining a sense of well-being. You would agree that having adequate financial resources would be an important component of wellness for an adult. However, simply possessing money is not enough. How one manages it and plans its use is equally significant for the optimal benefit of this resource. These issues will be addressed in the next chapter – Financial Management and Planning.*

### **Key terms and their meaning**

**Wellness:** Associated with good physical health, emotional stability, healthy relationships with family, friends and peers as well as productivity and satisfaction in one's work and workplace.

**Cut-off Point:** Values which indicate the range of normal levels for weight or blood cholesterol or blood glucose and so on. Anything below the minimal value

or above the maximum value becomes abnormal. In other words such values “cut off” the abnormal from the normal values.

**Glucose Tolerance:** Ability of the body to respond to high intake of glucose (and consequently high levels of blood glucose) by secreting adequate levels of insulin. Insulin helps glucose to enter the body cells and thus reduces glucose levels in the blood. People who are predisposed to diabetes or suffering from diabetes have poor glucose tolerance.

## ■ REVIEW QUESTIONS

### 1. Mark the following statements as True or False.

1. You need to be physically active only when you need to lose weight.  
True/False
2. Physical fitness requires membership in a gym, special equipment and clothes.  
True/False
3. Without 60 minutes of exercise everyday physical fitness cannot be achieved.  
True/False
4. Endorphins are chemical substances that make a person depressed.  
True/False

### 2. Exercises

- (a) Assess BMI for self and two adults, one young adult and one older adult.
- (b) Group Discussion: Organise a group discussion on “Older adults do not need to exercise”.
- (c) Debate: Organise a debate in the class between groups for and against the statement: “When one is physically fit, it is not necessary to bother about one’s diet”.
- (d) Personal diary: Differentiate between eustress and distress. Keep a record for one week of your eustress and distress states.

### 3. Group projects

1. Design attractive posters to publicise the importance of wellness and fitness.
2. Collect recipes for snacks that are healthy and nutritious. Make a recipe booklet and share it in the community.

### 4. Projects for school

1. Organise a walking rally to promote benefits of exercise.
2. The teachers in the school may organise an exhibition of students’ posters to publicise the importance of wellness and fitness for parents and community members.
3. School may organise Health and Wellness week to celebrate the World Health Day.