CLASS: I M.SC PSYCHOLOGY

SUBJECT NAME: LIFESTYLE PRACTICES

SUBJECT CODE: GOFN25C

UNIT IV

HEALTHCARE DURING ADOLESCENCE AND ADULTHOOD

SYLLABUS OVERVIEW

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5.10 NUTRITION FOR THE AGING AND THE AGED

We have seen the three phases of a normal life cycle pattern. Adulthood and the old age are the last phases of this life cycle.

The aging process continues throughout life. Although physical growth is completed by early adulthood, the body tissues and cells remain in a dynamic state, with catabolism slightly exceeding anabolism, resulting in a net decrease in the number of cells. Several theories have been put forward to ascribe the changes while aging to several factors. Aging is probably multifactorial, resulting from the interaction of several mechanisms.

After the years of adolescence which cause upheavals in the life of the person, the individual struggles to emerge as an adult who knows who he is and what his goals are.

Adulthood may be divided into three such phases. These are:

Young Adulthood	—	18 to 40 years
Middle Adulthood	—	40 to 60 years
Old Adulthood	—	60 to 80 years and above

❑ Young Adulthood

It is a phase characterized by years of stress and also fulfilments. The person who can settle down comfortably will enter into marriage and build an intimate and close relationship with his spouse. These are years of building one's career, establishing one's own home, of parenthood and of bringing up young children through the same stages of life. In these years the adult struggles to make a niche for himself and his family.

Table 5.12 *Diet plan for adolescent boy and girl (16–18 years old)**
RDI: energy—2820 kcal; proteins—53 g

Food Exchange List				
	Food Group	*No. of Exchanges**	*Protein (g)*	*Energy (kcal)*
1.	Milk	4	20.0	400
2.	Legume and pulse	2	12.0	200
3.	Flesh food	1	10.0	100
4.	Vegetable A	2	—	—
5.	Vegetable B	2	—	100
6.	Fruit	4	—	200
7.	Cereal	12	24.0	1200
8.	Fat	4	—	400
9.	Sugar	50 g	—	200
			66.0	2800

Menu Plan

Breakfast	:	Bread toast	—	3 slices with butter
		Poached egg	—	1
		Fruit milk shake	—	1 glass
Lunch	:	Potato *paratha*	—	2
		Cucumber salad	—	1/2 cup
		Rajmah-urad usal	—	1 cup
		Rice	—	1 cup
		Buttermilk	—	1 glass
Snacks	:	Milk	—	1 cup
		Rava laddoo	—	1
		Banana	—	1
Dinner	:	*Chapatis*	—	2
		Mixed vegetables curry	—	1 cup
		Rice	—	1 cup
		Dal palak	—	1 cup
		Curds	—	1/2 cup
Bedtime	:	Milk with protinules	—	1 glass

* For an adolescent girl reduce milk exchange to three and cereal exchange to eight.

❑ Middle Adulthood

The children have now grown and there is an emptiness in one's life. It is a period in which the adult can reminisce on all that has passed in his life and he must come to terms with what life has offered. This period can be fulfilling if engaged in activities through which the adult regenerates his life in the lives of young persons following the same path.

❑ Older Adulthood

This is the last stage of life. If the earlier years have been fulfilling, the older adult arrives at this phase equipped to face the problems that this age poses. If on the other

hand, there is no sense of completeness it torments the old person. He feels unneeded and unwanted.

Many families in our country are closely knit. The old in such homes have a sense of belonging, and are an essential part of the family. The old have been enriched by life's experience in their maturing process. Such old people in turn try to enrich the lives of others and such relationships are mutually rewarding.

❑ Biological Changes in the Aging Process

As a person grows older his organs show reduced ability to perform physiological functions. This is because there is cell loss and reduced cell metabolism. For example, rate of blood flow through kidney is reduced by 65 percent. In a glucose tolerance test, the blood sugar level takes a longer time to return to the normal level. Such and similar changes take place while aging.

Some changes, that take place in old age may affect food patterns, such as decreased secretion of digestive juices, decreased motility of the gastro intestinal tract and decreased absorption and utilization of nutrients.

❑ Problems of the Aging process

It is necessary to take into consideration the changes that ageing brings with it. Generally, the elderly have a higher percentage of body fat, a lower lean body mass, and a lower calorie requirement. The decrease in calorie needs depends on health status and activity levels.

Eating patterns in the elderly are determined by many physical, mental, and emotional factors, such as impaired vision, smell, hearing, taste, poor teeth or ill fitting dentures. There is decreased dexterity and work capacity, poor memory; loneliness and depression; illness and multiple medications; limited financial resources; and problems of mobility and transportation.

Foods which are fibre-rich, such as fresh fruits, vegetables, or whole-grain cereals or breads, are more difficult to chew. The aged thus, tend to eat foods low in fibre, high in sugar and fat. Depression and physical limitations can limit access to food or their ability to prepare it.

It is best to keep the meal-planning regimen of the elderly simple. Nutritional goals should be to provide simple, balanced, consistent meals that fit their eating habits and their physical and psychological needs. It is futile trying to change their long-standing food habits. It must be remembered that many elderly have the time and interest in their health management and will eagerly follow instructions.

❑ Nutritional Requirement of Adults

The requirement for all nutrients continues. If the dietary habits have been well formed and set during adolescence then it is necessary to maintain the same pattern even in adulthood since the same body processes are taking place in the adult years.

1. Calorie Requirement (Energy Requirement) The requirement for calories decreases with advancing age. After the growth spurt seen in adolescence the energy requirements decrease steadily. This is because the basal metabolism of an adult is reduced, accompanied by decrease in his physical activities.

Thus, after the age of 23 years, the calorie requirement is decreased by 7.5 percent for every 10 years. The calorie requirement then can be considered adequately met for the adult if he maintains his *normal* weight. However, the calorie requirement for two individuals of the same age will be different because the physical and physiological activity of each individual varies.

2. Carbohydrates Since, the calorie requirement of adults is lowered, it is necessary to control the intake of carbohydrates especially the simple sugars like table sugar and glucose. Consumption of complex carbohydrates can be encouraged to include foods such as whole grain cereals, potatoes and dried legumes in the diet. These foods should supply about 40 to 50 percent of the total calorie requirement. About 5 to 10 percent of the total energy requirement may come from sugars. It is important to include high amounts of soft fibre foods in the diet especially for the older adults since, it helps to maintain the intestinal function and prevent constipation

3. Fats It is necessary to consume fats comprising about 10–15 percent of the total calorie intake. This is because many adults are prone to heart disease for which this preventive measure needs to be paid attention to. Serum cholesterol levels increase after the age of 50 years. Therefore, one should completely avoid foods containing high levels of cholesterol such as egg yolk, whole milk, organ meats, etc. Adequate use of polyunsaturated fats, less or no fried foods and trimmings of all visible fats from meats would minimize the intake of saturated fats.

4. Proteins The rate of protein synthesis decreases every year as age advances. No new tissue is formed except that there is maintenance of worn out tissues. The requirement for dietary protein decreases by about 30 percent. It is necessary to supply protein at about 15–20 percent of the calorie requirement. This applies to people who have good health and do not suffer from any problems. Older persons suffering from gastro-intestinal problems, infection or changed metabolic efficiency as a result of disease or medication should increase their protein intake appropriately.

5. Vitamins The requirement for these is similar as for adults. However, due to the normal aging process, the ability to store fat-soluble vitamins decreases. The problem of vitamin deficiency in the old may stem from inadequate intake rather than from increased need. The need for the fat-soluble vitamins, especially A and D, may be met easily through the diet but their absorption and storage may be hampered due to lack of dietary fat, inadequate bile secretion, use of laxatives and antibiotics, and/or pancreatic insufficiency.

Special attention needs to be given to vitamin D since, bone decalcification is very common in the later years. If its requirement is not met through the diet, supplements may have to be given. Other fat-soluble vitamins may be supplied through diet.

Older adults may require supplementation of B vitamins especially thiamine, pyridoxine, cyanocobalamin, and folic acid because their daily food intake is decreased, hence, the decreased intake of dietary vitamins. The increased needs for these vitamins may be due to less efficient absorption or altered metabolism and excretion resulting not only from physiological change but also from certain medications. (Refer to Table 7.1 on drug-nutrient interaction in Chapter 7.)

6. Minerals Special attention needs to be given to two minerals, iron and calcium, since, these may be lacking in poor diets and may need to be supplemented. The requirement of iron for women may be higher than that of men until they attain menopause. But after completion of menopause their requirement for iron is similar to that of men.

Absorption of calcium decreases with age, resulting in osteoporosis and fragile bones which fracture easily. Calcium is also important for maintaining health of the oral tissues.

7. Water The need for this important nutrient factor varies with the environment. Adequate amounts of fluids should be consumed every day. In most old persons this is ignored resulting in decreased urine output and constipation.

5.11 COMPLICATIONS COMMONLY OCCURRING IN LATE ADULTHOOD

❑ Overweight and Obesity

These two are a cause for concern since, they make the adult prone to other more dangerous diseases such as heart diseases. This is so because the adult continues his food habits as in the developing years or younger age, which results in accumulation of fat and, finally obesity. Such individuals should be persuaded to reduce energy intake before it is too late.

❑ Diabetes Mellitus

This disease is characterized by high levels of sugar in blood and urine due to inadequate supply of insulin in the body. Onset of diabetes during maturity normally sets in after the age of 40. Diabetes has shown to have an adverse effect on almost all systems of the body. Diabetes in middle and old adulthood can usually be controlled by diet, weight loss and medication. Insulin therapy is very rarely necessary.

❑ Digestive System Concerns

Dentition is a matter of concern since most people lose all their teeth above the age of 65 years. Chewing, therefore, becomes very difficult. Those who have satisfactory artificial dentures do not face much problems, but those who have ill-fitting dentures or those who cannot afford them cannot chew food and this limits their food intake.

❑ Peptic Ulcer

Ulcers are lesions or scars in the lining of the gastrointestinal tract. Gastric ulcers occur in the stomach while duodenal ulcers are located in the upper part of the small intestine. Ulcers may cause gastric discomfort for several hours after eating, when the stomach is empty and its excessive acid content is in direct contact with the stomach or intestinal lining.

Treatment for ulcers consists of rest, antacid therapy and regular and frequent bland meals.

❑ Gall-Bladder Disease

The incidence of this disease increases with age. Formation of cholesterol-containing gall stones may necessitate the removal of the gall bladder. A high fat diet aggravates the pain of such people, hence, a low fat diet is recommended. Surgical removal of the gall bladder helps such persons to revert to their normal diet.

❑ Malabsorption

Malabsorption is the inability of the body to absorb nutrients. This often occurs in the case of vitamin B_{12} and calcium due to advancing age, possibly as a result of lower gastric acidity.

❑ Diverticulosis

Occurs when pouching (diverticulosis) forms in the intestinal wall due to intralumenal pressure. This disease is accompanied by severe pain. Lack of dietary fibre has been pointed to as a contributing factor.

❑ Constipation

May result due to intake of foods containing low amounts of fibre or roughage, such as processed foods and easy to chew foods. It is also a side effect of constant intake of antacids that contain aluminium and carbonates. The treatment preferred for constipation is consumption of high-fibre foods which increase the bulk of stools and reduce transit time through the gastrointestinal tract. Such a diet should be accompanied by a generous fluid intake and exercise.

❑ Anaemia

Reduced levels of haemoglobin in the red blood cells means anaemia. Nutritional anaemia occurs more often in older people due to multiple deficiency of iron, protein, B_{12}, folacin and/or ascorbic acid along with reduced gastric acidity.

❑ Atherosclerosis and Coronary Heart Diseases

These diseases result due to narrowing of the blood vessels because of accumulation of fatlike substances such as cholesterol, resulting in reduced blood supply to the organs which then cannot function optimally. When such a condition occurs in case of arteries leading to the heart it can result in heart attack and ultimately heart failure.

Many causative factors have been pointed at, which lead to atherosclerosis and coronary heart diseases. They are obesity, stress, lack of exercise, smoking, excessive dietary cholesterol, saturated fat and sodium, excessive intake of cola, alcohol and caffeine found in all stimulating beverages. Men as well as women face the risk of coronary heart diseases. Timely diagnosis can respond to medication, weight loss and nutritional management as well as to behavioural and life style changes to reduce stress and other contributing factors.

❑ Hypertension

Increased blood pressure is implicated as a risk factor for coronary heart disease. Lowered intake of sodium can lower the blood pressure and so also can weight loss.

❑ Bones and Joints

Diseases of the joints and bones are common afflictions of the old. Diseases such as arthritis which affect the joints are osteoporosis and osteomalacia which reduce bone mass occur in many persons in their middle and later years. No nutritional therapy has been devised for arthritis except weight control to minimize the burden on joints and aspirin taken with food, milk or an antacid.

Osteoporosis and osteomalacia are due to decrease in the calcium content of the bones. While the former affects women mainly due to relative estrogen deficiency, physical inactivity and inadequate calcium intake, the latter affects older adults who do not drink milk or get enough sunlight or who have conditions which interfere with calcium absorption, such as liver or kidney disease, or who take anticonvulsions medication.

Treatment of both these deficiency diseases is to use calcium and vitamin D supplements.

❑ Osteoporosis

Osteoporosis is the most common disease in the world, and it is becoming even more significant as the global population grows and ages. The World Health Organization (WHO) has identified the bone disease as a "priority health issue" along with other major non-communicable diseases.

According to the International Osteoporosis Foundation, the lifetime risk for a woman to have an osteoporotic fracture is 30–40%. The prevalence of osteoporosis in men is higher than previously thought, with approximately 20% men affected.

1. Osteoporosis is Both Preventable and Treatable Unfortunately, many people are not diagnosed in time to receive effective therapy during the early phase of the disease, because there are no warning signs before a fracture occurs.

Following are the recommendations for prevention, risk assessment, diagnosis and treatment of postmenopausal osteoporosis, based on guidelines published by the National Osteoporosis Foundation (NOF) http://www.nof.org/physguide/.

2. Risk Assessment Characterized by low bone mass, microarchitectural deterioration, compromised bone strength, and an increase in the risk of fracture, osteoporosis is often defined clinically by an intermediate outcome: low Bone Mineral Density (BMD).

Bone Mineral Density (BMD) measurements are effective in assessing fracture risk, confirming a diagnosis of osteoporosis and monitoring the effect of treatment.

After menopause, all women should be evaluated clinically for osteoporosis risk in order to determine the need for BMD testing. The more risk factors a woman has, the greater her risk of fracture.

The major factors, associated with an increased risk of osteoporotic fracture in post-menopausal woman are

- Personal history of fracture as an adult.
- History of fragility fracture in a first-degree relative.
- Low body weight (< 127 lbs)
- Constant smoking.
- Use of oral corticosteroid therapy for more than 3 months.

Additional risk factors include impaired vision, estrogen deficiency at an early age (< 45 years), dementia, poor health, recent falls, lifetime low calcium intake, a sedentary lifestyle, and high alcohol consumption.

Osteoporosis can also result from numerous medical conditions and certain medications, including anticonvulsants, cytotoxic drugs, gonadotropin-releasing hormone antagonists, lithium, long term heparin use, and tamoxifen.

3. Diagnosis In general, BMD testing should be performed on all women aged 65 and older, regardless of risk factors, younger postmenopausal women with one or more risk factors, and postmenopausal women who present with fractures (to confirm diagnosis and determine severity of the disease).

It is important to note that women with slight builds will usually have a lower BMD. In addition, metabolic bone diseases other than osteoporosis, such as hyperparathyroidism or osteomalacia, may also be associated with a low BMD.

The following tests are good predictors of future fracture:

- Dual X-ray Absorptiometry (DXA)
- Peripheral Dual X-ray Absorptiometry (pDXA) and Single-energy X-ray Absorptiometry (SXA)
- Quantitative Computed Tomography (QCT)
- Ultrasound densitometry

Markers of bone turnover in the serum or urine are sometimes used to help assess risk of fracture, predict bone loss, or assess response to antiresorptive therapy. However, biochemical marker tests cannot replace BMD testing. Several interventions to reduce fracture risk include an adequate intake of calcium and vitamin D, lifelong participation in regular weight-bearing and muscle-strengthening exercise, avoidance of tobacco use, identification and treatment of alcoholism, and treatment of other risk factors for fracture such as impaired vision.

4. Treatment Considerations Before initiating drug therapy, it is important to counsel all patients about reducing risk factors and adhering to universal recommendations about calcium, vitamin D, and exercise. Physicians should also evaluate patients for secondary causes of osteoporosis and have central DXA measurements, when available.

FDA-approved pharmacologic options for the prevention and/or treatment of postmenopausal osteoporosis include, bisphosphonates (alendronate, alendronate plus D, ibandronate and risedronate or risedronate with 500 mg of calcium as the carbonate), calcitonin, estrogens (estrogen and/or hormone therapy), parathyroid hormone [PTH (1–34), teriparatide], and selective estrogen receptor modulators or SERMs (reloxifene).

5. Monitoring Treatment Osteoporosis needs lifelong management. It is important that patients adhere and be encouraged to comply with their therapies to reduce fracture risk.

Changes can be monitored every year during pharmacologic therapy for osteoporosis. It is important to note that the drugs may decrease a patient's risk of fracture even when there is no apparent increase in BMD. As with most tests, BMD has some precision error.

Biochemical markers of bone turnover can be used to monitor response to treatment. The decrease in turnover and the increase in BMD induced by antiresorptive therapies contribute to their antifracture efficacy. Biochemical markers show considerable variability within individuals such that fairly large changes are required to indicate a treatment effect; however, with antiresorptive therapy, the changes are often substantial.

It must be remembered that with increasing life expectancy, osteoporosis will continue to increase in prevalence.

❑ Neurological Disorders

1. Alzheimer's Disease Alzheimer's disease is a brain disorder named for German physician Alois Alzheimer, who first described it in 1906. Some features about Alzheimer's:

- **It is a progressive and fatal brain disease.** All over the world several million people are living with Alzheimer's disease. Alzheimer's destroys brain cells, hence there are problems with memory (which are the characteristic of Alzheimer's) and even thinking and behaviour. These may be severe enough to affect work, lifelong hobbies or social life. It gets worse over time, and it is fatal.
- **It is the most common form of dementia.** Dementia is the general term for loss of memory and other intellectual abilities of a person which can be serious enough to interfere with daily life. Vascular dementia is caused by reduced blood flow to parts of the brain. In mixed dementia, Alzheimer's and vascular dementia occur together. A person could be in any stage of dementia—early, middle or late. Experts estimate that today several people in their 30s, 40s and 50s have Alzheimer's disease or a related dementia.
- **It has no cure presently.** However, there are some treatments for some symptoms. Most important is the availability to the right services and support. There is a worldwide effort to find better ways to treat the disease, delay its onset, or prevent it from developing.

Causes The abnormality in the brain is found to develop due to the plaques build up between nerve cells. They contain deposits of a protein fragment called beta-amyloid. Tangles are twisted fibres of another protein called tau. The plaques and tangles tend to form in a predictable pattern, beginning in areas important in learning and memory and then spreading to other regions. It is believed that somehow they block communication among nerve cells and disrupt activities that cells need to survive.

In the early-stage of Alzheimer's disease there are problems with memory, thinking and concentration. Individuals in the early-stage need very little assistance with simple daily routines. The term younger-onset refers to a person under age 65. Since, such individuals may be employed or have dependent children, there are numerous issues which the family has to cope with.

2. Parkinson's Disease (PD) Parkinson's disease is a motor system disorder. It occurs as a result of the loss of dopamine-producing brain cells.

The four primary symptoms of PD are:

- tremor, or trembling in hands, arms, legs, jaw, and face;
- rigidity, or stiffness of the limbs and trunk;
- bradykinesia, or slowness of movement;
- and postural instability, or impaired balance and coordination.

As these symptoms become more pronounced, patients may have difficulty walking, talking, or completing simple tasks. This disease usually affects people over the age of 50. Early symptoms are subtle and occur gradually. In case of some people the disease progresses more quickly than in others. As the disease progresses, the shaking, or tremor, which affects the majority of PD patients may begin to interfere with daily activities. Other symptoms may include depression and other emotional changes; difficulty in swallowing, chewing, and speaking; urinary problems or constipation; skin problems; and sleep disruptions.

Presently, there are no laboratory tests to diagnose sporadic PD. Hence, the diagnosis is based on medical history and a neurological examination. Doctors may sometimes refer to the brain scans or laboratory tests of patients in order to rule out other diseases.

Treatment At present, there is no cure for PD, but a variety of medications provide dramatic relief from the symptoms. Usually, patients are given levodopa combined with carbidopa. Carbidopa delays the conversion of levodopa into dopamine until it reaches the brain. Nerve cells can use levodopa to make dopamine and replenish the brain's dwindling supply. Although levodopa helps several Parkinsonian cases, not all symptoms respond equally well to the drug. Bradykinesia and rigidity respond best, while tremors may be only marginally reduced. Problems with balance and other symptoms may not be alleviated at all. Anticholinergics may help control tremor and rigidity. Other drugs that are being tried are bromocriptine, pramipexole, and ropinirole,

In some cases, surgery may be required. A therapy called Deep Brain Stimulation (DBS) is used in which, electrodes are implanted into the brain and connected to a pulse generator that can be externally programmed. DBS reduces the need for levodopa and related drugs, which in turn decreases the involuntary movements called dyskinesias that are a common side effect of levodopa. It also helps to alleviate fluctuations of symptoms and to reduce tremors, slowness of movements, and gait problems. DBS requires careful programming of the stimulator device in order to work correctly.

PD is both chronic and progressive. Its symptoms grow worse over time. While some people become severely disabled, others experience only minor motor disruptions. Tremor is the major symptom for some patients, while for others tremor is only a minor complaint and other symptoms are more troublesome. The symptoms and the intensity of the symptoms also varies from person to person.

Presently, research in this field is using animal models to study how the disease progresses and to develop new drug therapies. Scientists are looking for the cause and to search for possible environmental factors, such as toxins, that may trigger the disorder, and also study genetic factors. Work is on to develop new protective drugs that can delay, prevent, or reverse the disease.

A sample menu for an old person is shown below.

Table 5.13 *Diet plan for an old person (60–80 years)*
*Energy requirement for a 65 years old—1757 kcals**
Protein—55 g

Food Exchange List

	Food Group	*No. of Exchanges*	*Protein (g)*	*Energy (kcal)*
1.	Milk	4	20.0	400
2.	Legumes and pulses	2	12.0	200
3.	Flesh food	1/2	5.0	50
4.	Vegetable A	2	—	—
5.	Vegetable B	2	—	100
6.	Fruit	2	—	100
7.	Cereal	6	12.0	600
8.	Fat	2	—	200
9.	Sugar	25 g	—	100
			49.0	1750

Menu Plan

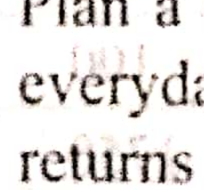
Tea	:	1 cup		
Breakfast	:	Bread	—	3 slices with 1/2 tsp butter
		Egg (soft-boiled)	—	1
		Milk	—	1 cup with sugar
		Banana	—	1 small
Lunch	:	*Chapati*	—	1
		Rice	—	1/2 cup
		Dal	—	1 cup
		Alu palak	—	1 cup
		Curds	—	1/2 cup
		Orange or sweet lime	—	1
Tea	:	Tea	—	1 cup
		Biscuits	—	2
Dinner	:	*Chapati*	—	1
		Rice	—	1/2 cup
		Mung usal	—	1 cup
		Dudhi/pumpkin vegetable	—	1 cup
		Curd	—	1/2 cup
		Salads	—	Cooked beet, carrot, raw onion, cabbage
Bedtime	:	Warm milk	—	1 cup

* Energy requirements at 25 years of age is 2400 kcals. For every 10 years, decrease energy requirements by 7.5 percent.

SUMMARY

Infancy, childhood, adolescence, adulthood and old age are the various stages in a life cycle. A balanced diet at every stage can be beneficial to the health and well-being of a person. A pregnant and lactating mother has greater responsibility towards the health

of her child since her nutritional status during these periods affects the baby's physical and mental development. Balanced diets for every stage of life have been specified.



CASE STUDIES

I A young pregnant woman, aged 27 years and in her third trimester, has approached you for advice about improving her weight since she is slightly underweight. She is suffering from morning sickness and showing signs of toxaemia. She is also slightly anaemic. Write a note as to how you will guide her for the same.

II A lactating mother needs information on supplementary feeding for her 5-month-old infant. Can you guide her? Give the steps which she should follow for successful weaning.

III Plan a week's menu for a 7-year-old boy who carries a lunch tiffin to school everyday. Also, list out snacks that his mother can cook to feed him when he returns from school in the evening.

IV A BPO executive is suffering from hyperacidity and complains of a burning sensation in the epigastric region. State what dietary and lifestyle changes he needs to make.

V A woman aged 72 years is living by herself and cooks her own food. She has lost all her teeth and suffers from constipation. She is also slightly hypertensive and has hypothyroidism since the last 5 years. Outline the following:

1. Foods which she should use more often.
2. Dietary and lifestyle changes which she needs to make in order to be able to overcome the problem of constipation.
3. Hints to manage hypothyroidism.