

## DIET IN OBESITY AND UNDERWEIGHT

### INTRODUCTION:

Obesity is due to positive energy balance; the intake of calories is more than the expenditure of energy. Obesity is a state in which there is a generalised accumulation of excess adipose tissue in the body leading to more than 20 per cent of the desirable weight. Obesity is a complex multi factorial chronic disease developing from interactive influences of numerous factors – social, behavioural, psychological, metabolic, cellular and molecular.

All those BMI is less than 18.5 are considered as underweight. Children who are subjected to socioeconomic and dietary constraints during the critical years of growth and development end up with small body size.

### AIM:

To prepare a diet in obesity and underweight for -----

### PRINCIPLE :

- Low calorie, normal protein, vitamin and mineral, restricted carbohydrates, restricted fat and liberal fluid, high fibre diet are suggested in obesity.
- The diet should be adequate in all other nutrients except calories. The diet should consist of all five food groups.
- A high calorie, high protein, high fat diet with liberal vitamin intake is recommended for underweight .
- Before going into the diet the first step is to determine and eliminate the cause for undereating. Then a balanced diet should be planned based on the requirements.

### PROCEDURE:

### RESULT:

## DIET IN DIABETES MELLITUS

### INTRODUCTION:

Diabetes mellitus is a chronic metabolic disorder that prevents the body to utilise glucose completely or partially. It is characterized by raised glucose concentration in the blood and alterations in carbohydrate, protein and fat metabolism. This condition can be due to failure in the formation of insulin or liberation or action. Type 1 diabetes mellitus , also known as juvenile onset diabetes or insulin dependent diabetes. There is usually sudden onset and occur in the younger age group. Type 2 diabetes mellitus , adult onset diabetes, is called non insulin dependent diabetes. It is the most common form of diabetes and develops slowly and is usually milder and more stable.

### AIM:

To prepare a diet in diabetes mellitus for -----

### PRINCIPLE:

- The patient should maintain body weight 10 percent lower than the ideal/desirable body weight.
- Complex carbohydrate and fibre should be included in the diet. 25 – 40 g of dietary fibre can be included per 1000kcal consumed. Millets should be consumed and refined cereals should be avoided.
- The diet should include legumes, whole grain and fenugreek seeds. Polyunsaturated fatty acids and monounsaturated fatty acid are preferred.

### PROCEDURE:

### RESULT:

## DIET IN CARDIOVASCULAR DISEASES

### INTRODUCTION:

Cardiovascular disease is a general term describing diseases of the heart and blood vessels. The incidence of cardiovascular disease is 47 per cent in developing countries, as against 27 per cent in developed countries among people below 70 years. Coronary heart disease is highly predictable, preventable and treatable.

### AIM:

To prepare a diet in cardiovascular diseases for -----

### PRINCIPLE:

- Atherosclerosis – low calorie, low fat particularly low saturated fat, low trans fat, low cholesterol, high in PUFA with omega 6 to omega 3 ratio 4-10:1, low carbohydrate and normal protein, minerals and vitamins are suggested. High fibre diet with increased amount of antioxidants is also recommended.
- Hypertension - low calorie, low fat, low sodium diet with normal protein intake is prescribed.
- Familial hypercholesterolemia – the diet should be low in saturated fats and cholesterol but polyunsaturated fats from vegetable oil and in other foods are permitted.

### PROCEDURE:

### RESULT:

## DIET IN RENAL DISEASE

### INTRODUCTION:

Glomerulonephritis is an inflammatory process affecting the glomeruli, the small blood vessels in the head of the nephron.

Nephrotic syndrome can be caused due to progressive glomerulonephritis, diabetes mellitus, amyloidosis resulting due to drugs , heavy metals and toxic venom.

Acute renal failure is a sudden shutdown of renal function following metabolic insult or traumatic injury to normal kidneys. Chronic renal failure is also known as uraemia as the level of blood is very high. When 90 percent of functioning renal tissue is destroyed , uremia occurs.

### AIM:

To prepare a diet in renal disease for -----

### PRINCIPLE:

- Glomerulonephritis – adequate proteins should be given unless there is oliguria or anuria. Salt is restricted if there is oedema, hypertension. The fluid intake will be adjusted to output including losses in vomiting or diarrhoea.
- Nephrosis – restricted protein, high carbohydrate, restricted salt, moderate fat with restricted fluid are recommended for a nephrotic patient. Vitamin supplements especially vitamin C should be given.
- Acute renal failure – a minimum of 600- 1000 kcal is necessary. A high calorie intake is desired mainly from carbohydrates and salts. All foods containing protein is stopped if the patient is under conservative treatment and BUN is rising.
- Chronic renal failure – diet should be palatable, must have varieties adjusted according to altered biochemistry and physiology adequate enough for growth and children.

### PROCEDURE:

### RESULT: