

Case Study I

Answer:

- Observations:** Frank diabetes, taking oral drugs, overweight, needs to control blood glucose levels and also manage cholesterol levels in blood.
- Caloric requirement:** Sedentary worker : $25 \times 60 = 1500$
- % calories from proteins = $1 \text{ g/day} = 60 \text{ g} = 240 \text{ cal}$ (approx. 15%)
- Non-protein calories = $1500 - 240 = 1260$
- 50 % non-protein calories from carbohydrates = $630 = 630/4 = 158 \text{ g}$
- % calories from fats = $630 = 630/9 = 70 \text{ g}$ (approx. 40%)

Dietary Principles

- To avoid simple sugars
- To minimise foods rich in cholesterol
- To exercise regularly
- To distribute the calories from carbohydrates evenly during the day

S.No.	Item	No. of exchanges	Calories	Carbohydrates g	Proteins g	Fats g
1	Milk	4	400	18	20	20
2	Legumes, pulses	2	200	30	12	
3	Flesh food (egg)	1	100	----	10	13
4	Vegetable A	4	----	----	----	----
5	Vegetable B	1	50	10	----	----
6	Fruit	2	100	20	----	----
7	Cereals	4	400	80	8	----
8	Fat	3	300	----	-----	33
	Total		1550	158	50	65

Diet Plan

Morning		Tea	
Tea (without sugar)	1 cup	Milk	1 exchange
		Cereal	1 exchange
Breakfast			
Plain milk (with diabetic protein supplement)	1 exchange	Dinner	
Cereal	½ exchange	Cereal	1½ exchanges
Fat	1 exchange	Vegetable A	1 exchange
Flesh food	½ exchange	Vegetable B	1 exchange
Fruit	1 exchange	Legumes, pulses	1 exchange
		Fat	1 exchange
		Flesh food	½ exchange
Mid-morning			
Cereal	½ exchange	Bedtime	
Fruit	1 exchange	Milk	1 exchange
Lunch			
Cereal	1½ exchanges		
Vegetable A	1 exchange		
Vegetable B	1 exchange		
Legumes, pulses	1 exchange		
Fat	1 exchange		
Milk	1 exchange		

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