Health Care Assistant Programme **Nutrition** Nichola Pringle Nutrition Nurse Specialist

Overview

- What is a healthy diet
- Nutrition/Malnutrition
- Role of the Health Care Assistant
- Nutritional screening
- Nutritional Support

A healthy balanced diet consists of foods from 5 main food groups...

Fruit and vegetables

- 5 portions of fruit/ veg a day
- Fresh, frozen, tinned, dried, juiced
- Fruit and veg should account for 1/3 of daily diet
- Low in fat
- Provides vitamins and minerals

1 portion =

- 1 apple/banana/pear/orange
- 2 plums/kiwi fruits
- 1 slice of large fruit (melon)
- 3 heaped tablespoons of veg
- 1 glass fruit juice (1 only)
- Handful of grapes/berries

Starchy foods

- Breads, cereals, potatoes, rice, pasta
- Good source of energy
- Contain fibre, calcium, iron, B vitamins
- Choose wholemeal varieties high fibre can help keep you fuller for longer
- Every meal should be based on a starchy food

Milk and Dairy foods

- Milk, cheese, yoghurts, fromage frais
- Good source of calcium, protein, energy, vitamins B₁₂, A and D
- Choose lower fat versions, e.g. semiskimmed milk

Meat, fish and alternatives

- Meat, fish, eggs, beans, pulses
- Good source of iron, protein, B vitamins, zinc and magnesium
- Choose lower fat versions, e.g. remove skin and visible fat

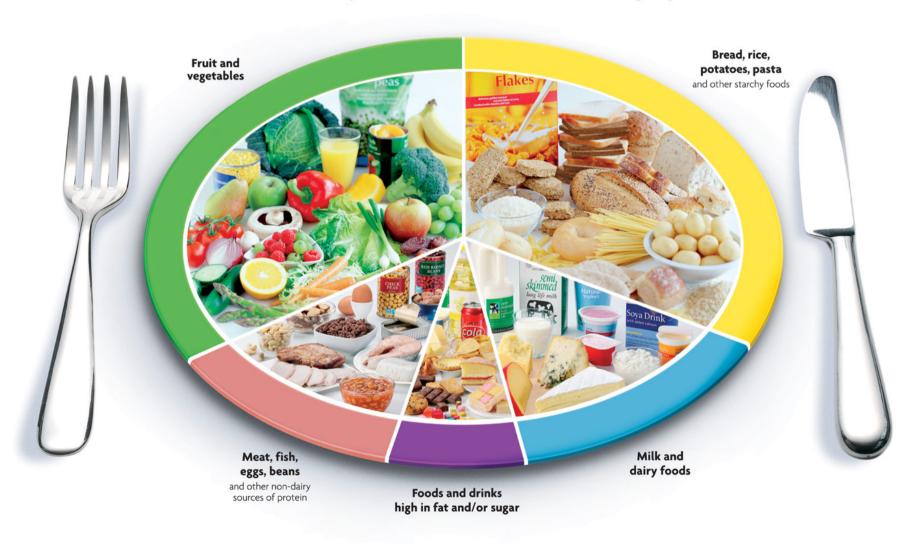
Foods containing fats and sugars

- Margarine, butter, cooking oils, mayonnaise, cream, crisps, sweets and biscuits etc
- All a concentrated source of calories
- Very little nutritional value
- Use sparingly
- Choose lower fat or no added sugar versions

The eatwell plate



Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.



Fluids

- It is important to ensure we are drinking enough
- Water is needed by our bodies to work properly; recommended guidelines: -* Aged 18-60 35ml/kg of body weight.
 - *Aged 60yrs+ 30mls/kg of body weight.

(Bapen, 2004)

Nutrition

- Nutrition is a huge topic and is at the heart of all nursing care.
- According to the NPSA (National Patient Safety Agency) nutrition is a major clinical and public health issue within the UK

• It is estimated that 4 out of 10 people admitted to hospital are malnourished on arrival.

• 6 out of 10 people are at risk of worsening nutrition, or of becoming malnourished during a hospital stay.

 At any one point in time more than 3million people in the UK are malnourished or at risk of......

That equates to the entire population of Birmingham, Cardiff, Glasgow and Belfast combined. (Elia & Stratton, 2009)

What is Malnutrition?

Defined as:-

"the condition that develops when the body does not get the right amount of the vitamins, minerals, and other nutrients it needs to maintain healthy tissues and organ function." (The free dictionary.com)

 It is a cause and consequence of disease and untreated it can lead to further health complications. (BAPEN)

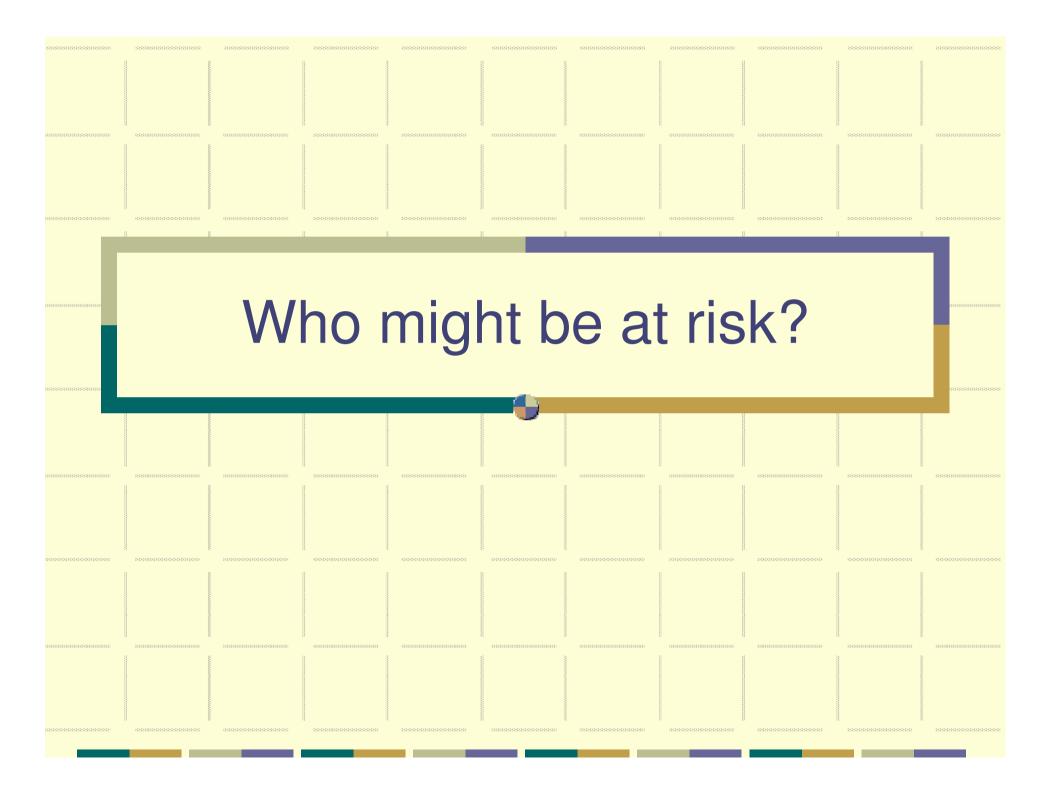
Malnutrition can lead to:-

- Impaired immune function & ↑ risk of infection/sepsis,
- † risk of pressure ulcers
- Delayed wound healing & ↑ post op complications,
- Muscle wasting/weakness/Reduced mobility
- Feelings of depression,
- Fatigue/Fainting,
- Reduced quality of life
- & In extreme cases: -
- Reduced organ function,
- Heart problems,
- Death

ESPEN VIDEO.....

Why might patients become malnourished?

- Medical conditions.
- Increased nutritional requirements
- Nausea & vomiting
- Anxiety
- Pain
- Malabsorption
- Depression
- Medication
- Hospital environment
- Dysphagia



- Elderly & children
 - Cancer
 - G.I. Problems
- Neuromuscular disorders
 - Critically ill
 - Strokes
 - Learning disabilities

How does this affect you?

- You'll need to spend more time with the patients
 - Will need higher level of care
 - Pressure areas
 - Assistance with mobility & toileting
- One of the roles of the Health Care
 Assistant is to encourage patients with
 diet and fluids

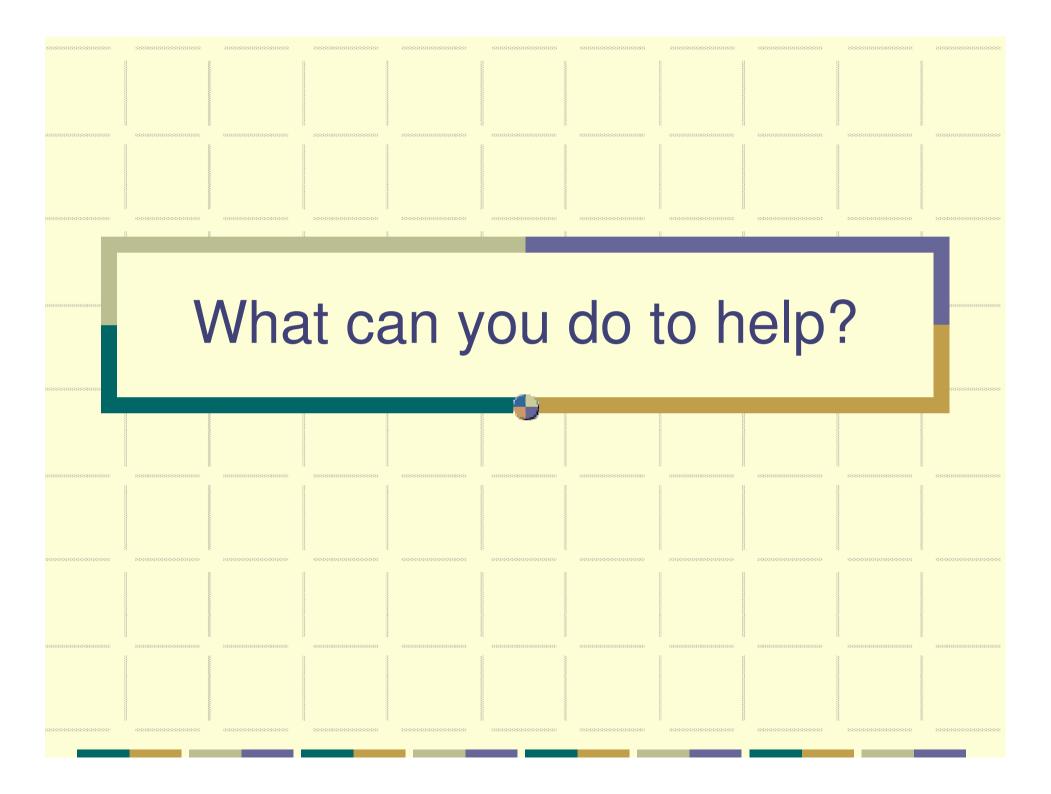
Why might a patient not be eating well?

Why won't they eat?

- Don't like the food
- Different to normal meal pattern
- Portions too big and off putting
- Have no sense of taste / smell
- Nausea/vomiting
- Meals not visually appealing
- Food too hot or too cold
- Unsuitable consistency

Continued....

- Embarrassed about eating in public
- Food placed too far away
- Patient off ward
- Medical reasons
- Not enough assistance given
- Patient unable to use utensils
- Not given enough time to eat meal



Considerations for assisting your patients

- Are you both positioned appropriately?
- 1:1
- Body position the best body position for eating is the position we typically assume when we eat at the table: feet on the floor or other hard surface, hips and knees at 90, the head in midline with the spine, and the back erect. The chin should be slightly tilted down.

- Head of the bed should be raised to at least
 30 45 degrees
- Head position the head should be in the midline with the chin tilted slightly downwards.
- Chin tuck is protective for most people as the epiglottis forms a protective shelf over the vocal folds as the patient swallows.

- Ensure the patient's mouth is clean and dentures in place
- Position
- Communication
- Amount of food on the fork/spoon
- Allow time to chew and swallow
- Give a rest between courses
- Give drinks throughout the meal

Continued...

- Is the food being offered too fast?
- Is the amount of food for each mouthful about right?
- Is the food at the right temperature?
- Is it a suitable consistency?
- Does it look appetising?

Practical suggestions

- Do they need...
 - To be closer to their meal
 - Drinking cups with spouts
 - Two handled drinking cups
 - Plate guard
 - Non-slip mats
 - Clothes protection
 - Does the whole meal need to be served from one bowl?

Improving meal times

- Support them to clean themselves before and after a meal
- Attractive setting
- Clear tables of unnecessary clutter
- Social interaction
- Protection of meal times (hospital policy)



Is to complete food record charts

Considerations when completing food record charts

- Identify those patients which require food charts
- Remember to complete for each meal.
- The meal itself:
 - What did the meal consist of?
 - How big was initial portion?
 - How much of portion was eaten?
 - What was left over crusts, vegetables, all potatoes or meat?

Completing food charts

- The greater the information the better the assessment, therefore aim to:
 - Complete food charts whilst plates are at bedside
 - Judge for yourself to eliminate patient error
 - Provide as much detail as possible, how many spoons etc taken
 - Was it a small or average portion
 - Did they refuse their meal or leave most why?

A bad food record chart

Breakfast	weetabix	Cooked breakfast
Lunch	Soup & Sandwiches	All main
Evening meal	Pork dinner & pudding	
Extras		

- How many courses did they have?
- Are they having any snacks between meals?
- Did they take their supplements?
- Get the family involved, the patient may be eating more than you realise.

A good food record chart

Breakfast	1 toast 2 weetabix	1Bacon, 1 bread
Lunch	All soup 1 x ½ sandwich	½ small bowl soup, 1 bite sandwich
Evening meal	1 scoop mash, slice pork, all carrots All crumble and custard	½ Cornish pasty, Ice cream all
Extras	1 forticreme 2 ginger nut biscuits	½ bag crisps

Importance of accurate food record chart

- Used to estimate calories & protein consumed
 - Dieticians use the information to help formulate care plans
 - Help to assess if the patient is meeting their nutritional requirements
 - To see if supplements need adding or increasing and/or would the patient benefit from additional snacks

How do we identify malnourished patients in the hospital?

Identifying those at risk...

- Malnutrition is not easy to spot! It is not just the 'obviously thin' that may be at risk.
- Overweight and obese people can be clinically malnourished. If they have lost weight unintentionally, have little appetite and are not likely to eat much they are already at increased risk.
- If additionally they have an underlying health condition -maybe undiagnosed- they could be at serious risk of malnutrition.

- There is also the perception that older people (especially the women) should be thin.
- This "thinness" may be unintentional and could mask an underlying health condition or be associated with depression, lack of mobility; or even the lack of function/access/ability/equipment or the finances needed to prepare appropriate food.
- MUST Screening.....

Screening is a MUST!

Malnutrition Universal Screening Tool

- Launched Nov 2003
- 5 step nutritional screening tool
- Used in acute and community setting
- Patients will either have a score of 0, 1, 2 or more after tool completed

MUST

Step 1 - measure height and weight to obtain a BMI score

Weights

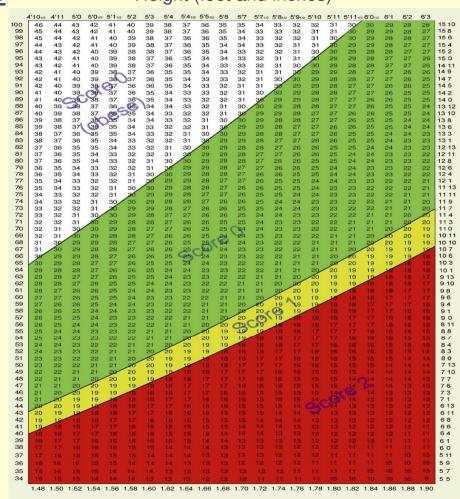
- All wards should have good working scales
- Ensure you know how to use them
- Weigh patient on admission
- Repeat weekly and record!
- If patient can sit in a chair, they can be weighed
- Use conversion charts



Weight

(kg)

Height (feet and inches)



Weight (stones and pounds)

Height (m)

Note: The black lines denote the exact cut off points (30,20 and 18.5 kg/m2), figures on the chart have been rounded to the nearest whole number.

Step 2 - note % unplanned weight loss and score (table provided)

		SCORE 0	SCORE 1	SCORE 2
		Wit Loss < 5%	WtLoss 5-10%	WtLoss > 10%
8	34 kg	< 1.70	1.70 - 3.40	>3.40
	36 kg	< 1.80	1.80 - 3.60	>3.60
	38 kg	< 1.90	1.90 - 3.80	>3.80
	40 kg	< 2.00	2.00 - 4.00	>4.00
	42 kg	< 2.10	2.10 - 4.20	>4.20
_	44 kg	< 2.20	2.20 - 4.40	>4.40
_	46 kg	< 2.30	2.30 - 4.60	>4.60
-	48 kg	< 2.40	2.40 - 4.80	>4.80
_	50 kg	< 2.50	2.50 - 5.00	>5.00
	52 kg	< 2.60	2.60 - 5.20	>5.20
	54 kg	< 2.70	2.70 - 5.40	>5.40
_	56 kg	< 2.80	2.80 - 5.60	>5.60
_	58 kg	< 2.90	2.90 - 5.80	>5.80
	60 kg	< 3.00	3.00 - 6.00	>6.00
	62 kg	< 3.10	3.10 - 6.20	>6.20
	64 kg	< 3.20	3.20 - 6.40	>6.40
Ò.	66 kg	< 3.30	3.30 - 6.60	>6.60
	68 kg	< 3.40	3.40 - 6.80	>6.80
	70 kg	< 3.50	3.50 - 7.00	>7.00
_	72 kg	< 3.60	3.60 - 7.20	>7.20
	74 kg	< 3.70	3.70 - 7.40	>7.40
_	76 kg	<3.80	3.80 - 7.60	>7.60
_	78 kg	<3.90	3.90 - 7.80	>7.80
_	80 kg	<4.00	4.00 - 8.00	>8.00
	82 kg	<4.10	4.10 - 8.20	>8.20
_	84 kg	<4.20	4.20 - 8.40	>8.40
	86 kg	<4.30	4.30 - 8.60	>8.60
-	88 kg	<4.40	4.40 - 8.80	>8.80
-	90 kg	<4.50	4.50 - 9.00	>9.00
_	92 kg	<4.60	4.60 - 9.20	>9.20
	94 kg	<4.70	4.70 - 9.40	>9.40
_	96 kg	<4.80	4.80 - 9.60	>9.60
-	98 kg	<4.90	4.90 - 9.80	>9.80
_	100 kg	<5.00	5.00 - 10.00	
_	102 kg	<5.10	5.10 - 10.20	
-	104 kg	<5.20	5.20 - 10.40	
_	106 kg	< 5.30	5.30 - 10.60	
-	108 kg	<5.40	5.40 - 10.80	
Ξ	110 kg	<5.50	5.50 - 11.00	
	112 kg	<5.60	5.60 - 11.20	
-	114 kg	<5.70	5.70 - 11.40	
Ξ	116 kg	<5.80	5.80 - 11.60	
	118 kg	<5.90	5.90 - 11.80	
	120 kg	<6.00	6.00 - 12.00	
	122 kg	<6.10	6.10 - 12.20	
-	124 kg	<6.20	6.20 - 12.40	
	126 kg	<6.30	6.30 - 12.60	>12.60

			SCORE 1 WitLoss 5-10%	SCORE 2 Wiloss>10%
_	5st 4lb	<4lb	4lb - 7lb	>/16
	5st 7lb	<4lb	4lb - 8lb	>36
	5st 11lb	<4lb	4lb - 8lb	>086
	6ct	<41b	4lb - 8lb	>086
	6st 4lb	<4lb	4lb - 9lb	>916
	6st 7lb	<51b	5lb -9lb	>916
	6st 11lb	<51b	5lb - 10lb	>1005
	7st	<51b	5lb - 10lb	>1005
	7st 4lb	<51b	5lb - 10lb	>1005
	7st 7lb	<51b	5lb - 11lb	>1186
	7st 11lb	<51b	5lb - 11lb	>110
	8st	<61b	6lb - 11lb	>116
	8st 4lb	<61b	61b - 121b	>126
	8st 7lb	<61b	61b - 121b	>126
_	8st 11lb	<61b	6 lb - 12 lb	>126
9	9ct	<61b	61b - 131b	>1386
#	9st 4lb	<716	7lb - 13lb	>13%
=	9st 7lb	<71b	7lb - 13lb	>136
80	9st 11lb	<71b	7lb - 1st	>1st Olb
weight loss (st	10st	<71b	7lb - 1st	>1st Olb
=	10st 4lb	<716	71b - 1st	>1st Olb
90	10st 7lb	<7Ib	7lb - 1st	>1st 1lb
Š	10st 11lb	<81b	81b - 1st	>1st flb
	11st	<81b	8lb - 1st	>1st flb
before	11st 4lb	<8Ib	8lb - 1st	>1st 2lb
e_	11st 7lb	<81b	8lb – 1st	>ist 2lb
-	11st 11lb		8lb - 1st	>1st 3lb
£_	12st	<8IP	8lb - 1st	>1st 3lb
=	12st 4lb		91b - 1st	>1st 3lb
Wei	12st 7lb		91b - 1st	>1st 4lb
_	12st 11lb		91b - 1st	>1st 4lb
_	13st		91b - 1st	>1st 4lb
	13st 4lb	<91b	9lb - 1st	olic tet<
_	13st 7lb		91b - 1st	>fst 5lb
_	13st 11lb	<10Ib	10lb - 1st	dic tet«
Ξ	14st	<101b	101b - 1st	>1st filb
	14st 4lb	<101b	10lb - 1st	>1st 6lb
	14st 7lb	<10Ib	101b - 1st	>1st 6lb
_	14st 11lb	<101b	10lb - 1st	>1st 7lb
_	15st	<11lb	111b - 1st	>1st 7lb
	15st 4lb	<11lb	111b - 1st	>1st 7lb
	15st 7lb	<11lb	11lb – 1st	>1st Sib
	15st 11lb	<11lb	11lb - 1st	>ist 8lb
	16 st	<11lb	11lb - 1st	>1st Sib
	16 st 4lb	<11lb	11lb - 1st	>1st 9lb
	16st 7lb	<12Ib	121b- 1st	>fst 9lb

Step 3 - establish acute disease effect and score

Step 4 - add scores together to calculate overall risk of malnutrition



"Malnutrition Universal Screening Tool' ('MUST') MAG

Step 1

BMI score

Step 2 Weight loss score Step 3

Acute disease effect score

BMI kg/m² Score >20(>30 Obese) = 018.5-20 = 1 <18.5 = 2

Unplanned weight loss in past 3-6 months **%** <5 Score 5-10

If patient is acutely ill and there has been or is likely to be no nutritional intake for >5 days

Score 2

If unable to obtain height and weight, see reverse for alternative measurements and use of subjective criteria

Step 4

Overall risk of malnutrition

Add Scores together to calculate overall risk of malnutrition Score 0 Low Risk Score 1 Medium Risk Score 2 or more High Risk



Low Risk

Routine clinical care

· Repeat screening Hospital – weekly
Care Homes – monthly
Community – annually
for special groups
e.g. those >75 yrs

Management guidelines

Medium Risk Observe

- Document dietary intake for 3 days if subject in hospital or care home
- If improved or adequate intake little clinical concern; if no improvement clinical concern follow local policy
- Repeat screening
 Hospital weekly
 Care Home at least monthly
 Community at least every
 2-3 months

2 or more **High Risk**

Treat*

- · Refer to dietitian, Nutritional Support Team or implement local policy

 Improve and increase
- Improve and increase overall nutritional intake
 Monitor and review care plan Hospital weekly
 Care Home monthly
 Community monthly
- Unless detrimental or no benefit is expected from nutritional support e.g. imminent death.

All risk categories:

- . Treat underlying condition and provide help and advice on food choices, eating and drinking when necessary.
- Record malnutrition risk category.
 Record need for special diets and follow local policy

 Record presence of obesity. For those with underlying conditions, these are generally controlled before the treatment of obesity.

Step 5 - use management guidelines and/or local policy to develop care plan

MUST

- Launched in SRH March 2005
 - on HISS
 - to be completed in full on admission
 - weekly thereafter
 - appropriate action taken
- Audited annually

Bad examples!

BMI Score 18.5 - 20 Weight 184kg Height must be >7 ft!

22/08/06 - weight 44kg 24/08/06 - weight 2kg

Other signs to look out for...

- Are the patient's rings very loose?
- Have their dentures become loose?
- Are all their clothes too big?
- Are the chest bones visible?
- Are the limbs very thin?





Dietetic Intervention

- Patients identified as being at high risk should be referred to the dietician
- Registered Dieticians translate nutrition science into practical information and advice about food
- They are qualified to treat a range of medical conditions with dietary therapy based on current scientific evidence, best practice and on the individual needs of the patient
- The dietitian will:
 - Assess nutritional status
 - Assess intake
 - Calculate nutritional requirements
 - Formulate nutritional care plan

The nutritional care plan may involve:

- Food
- Supplementation
- Enteral Nutrition
- Parenteral Nutrition

FOOD

- Food is best!
- Fortify foods where possible, e.g. adding butter, cream, milk
- Snacks between meals/supper
- Nutritious drinks, e.g. milky tea, milkshake, fruit juice

Supplementation

A range of nutritional supplements are available...



Standard milk based

300kcal

12g protein

Strawberry, vanilla, neutral, tropical fruits, banana, chocolate

Standard fruit juice based

300kcal

8g protein

Forest fruits, lemon & lime, blackcurrant





Milk based with ↑ protein content

300kcal

20g protein

Strawberry, vanilla, forest fruits

Useful in patients with wounds/pressure sores/high losses



High kcal milk based

400kcal

18g protein

Summer fruits, apricot, vanilla

Useful in fluid restriction/bowel problem patients

Oral Supplementation



Pudding style

200kcal

11.9g protein

Banana, chocolate, vanilla, fruits of forest

Ideal to finish off a meal

Oral Supplementation



Milk shake

(fresh milk)

598kcal

11.7g protein

Strawberry, chocolate, vanilla, neutral Dislike carton milk supplements

Oral Supplementation



Fat emulsion

"energy shot"

30ml - 135kcal

Strawberry & neutral

Struggling with large volumes or if eating well – background dose

Oral supplementation



- Maxijul
- Powdered carbohydrate supplement
- 50g 190kcal
- Add to liquids, soups and puddings

Improving palatability

- Milky supplements
 - best served chilled
 - dilute with fresh milk
 - add ice cream
 - mix 2 flavours
 - warm up, e.g. hot choc
 - make into desserts

- Fruity supplements
 - best served chilled
 - dilute withwater/lemonade/soda
 - mix with fruit juice
 - make into ice lollies/jellies

How you can help...

- Make sure a spoon is provided to eat the forticreme
- Help patients to open their supplements and ensure they can reach them
- Many patients need regular prompting with supplements and snacks
- Scandishakes need making up
- Maxijul needs to be added to food

Continued...

- Is the dietitian ordering extra snacks for the patient?
 - If so, is the correct snack given at the correct time?
- Is the meal choice appropriate for that patient?
 - Are they on a special diet?

Special diets

- Diabetics diabetic options marked with 'D' on menu
- Healthy options marked with 'H'
- Pureed and soft diets available via hostess or dietitian
- Special diets available at request for e.g.. Allergies, coeliacs, certain religions

Questions???



TIME TO TASTE!.....