

# Modelling Healthy Eating and Weight Management Advice

Sally Bouttell – Diabetes  
Specialist Dietitian – York  
Hospital

York Teaching Hospital

NHS Foundation Trust



# Agenda

- **Diabetes Nutritional Guidelines**
- **Weight Management**
- **Healthy Eating**
- **Carbohydrates**
- **Physical Activity**
- **Questions**



# Evidence Based Guidance

- Information for healthy eating has been quite recently updated.
- May 2011 – Evidence based nutritional guidelines for the prevention and management of type 2 diabetes – Diabetes UK.

# Glycaemic Control and Type 2 Diabetes

- Weight Management should be the primary nutritional strategy in management glucose control for people who are overweight or obese.
- Regular moderate physical activity can reduce HbA1C by 4-7mmol/mol (0.45-0.65%)
- Total amount of carbohydrate consumed is a strong predictor of glycaemic response.
- Low GI diets may reduce HbA1C by 5-6mmol/mol (0.5%)

# Weight Management

- Weight loss improves insulin sensitivity
- Weight gain associated with diabetes mediations –
- Weight loss is associated with a 25% reduction in mortality in Type 2 Diabetes


# How to lose weight

- Based on guidance from DOM UK and NICE.
- NICE CG43 Obesity Dec 2006
- Dietary changes should be individualised, tailored to food preferences and allow for flexible approaches to reducing calorie intake.
- Unduly restrictive and nutritionally unbalanced diets should not be used, because they are ineffective in the long term and can be harmful.



# NICE Guidance

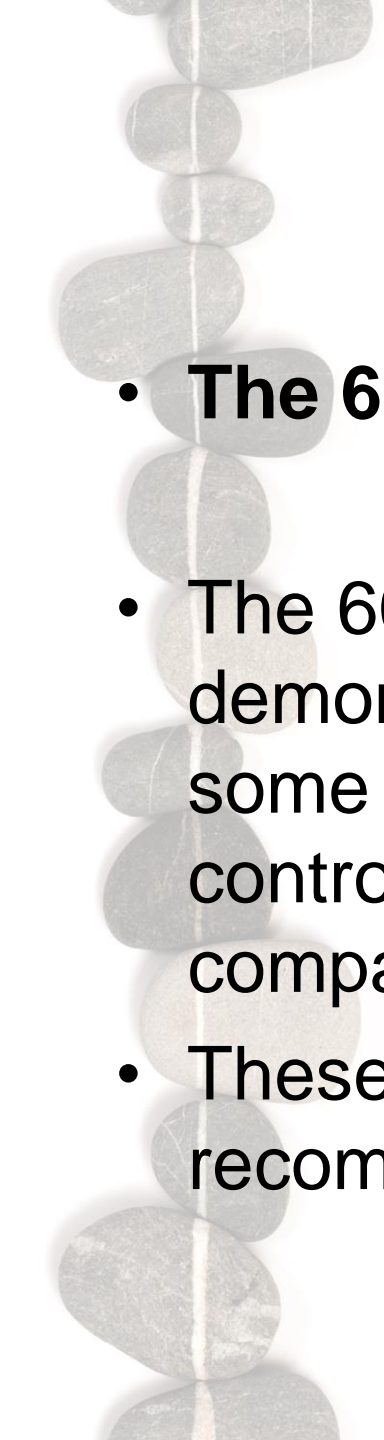
- Diets that have a 600 kcal/day deficit (that is, they contain 600 kcal less than the person needs to stay the same weight) or that reduce calories by lowering the fat content (low-fat diets), in combination with expert support and intensive follow-up, are recommended for sustainable weight loss.
- Low-calorie diets (1000–1600 kcal/day) may also be considered, but are less likely to be nutritionally complete.

- 
- A dietary approach alone is not recommended. It is essential that any dietary recommendations are part of a multicomponent intervention.



# DOM UK Guidance

- DOM UK Oct 2007
- **Stabilisation of eating**
- If an erratic eating pattern has been identified during the assessment process the first stage in management is to help the client develop a regular structured eating pattern
- Erratic eating may range from skipped meals and long periods of fasting, grazing, frequent snacking or binge eating.
- Guidance on meal planning, shopping, food labelling and portion sizes can be an important aspect of this process.

- 
- **The 600kcal deficit approach**
  - The 600kcal deficit approach has been demonstrated to be an effective strategy for some individuals with a review of 13 randomised controlled trials showing a weight loss of -5.32kg compared with usual care at 12 months
  - These diets are in line with the dietary recommendations for good health.

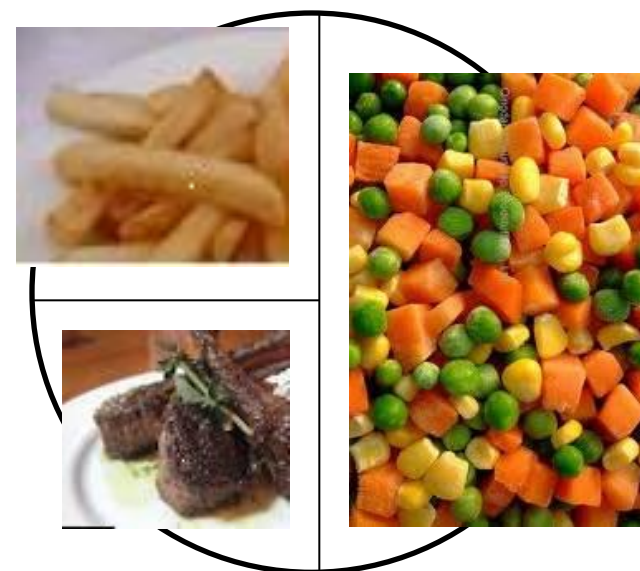
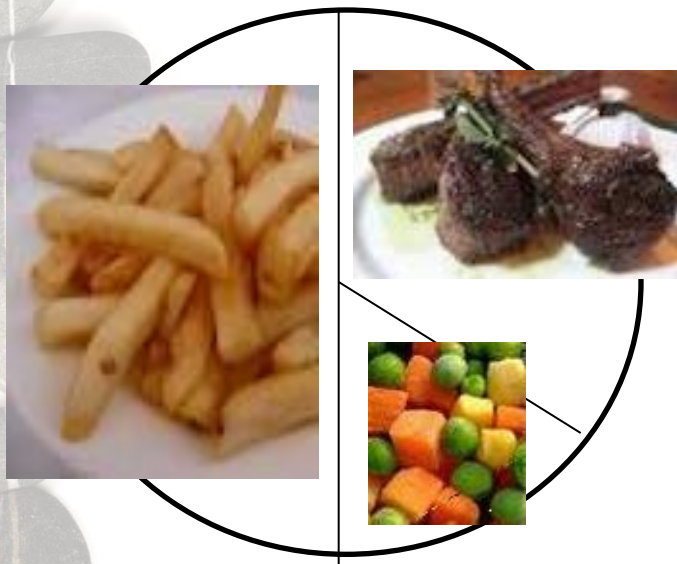
# Putting this into practice.

- Discuss energy balance.



- Aim for a 600kcal deficit

# Portion Sizes for Weight Loss



This meal contains 676kcal

This meal contains 476kcal

**Overall saving = 200kcal**

York Teaching Hospital

NHS Foundation Trust



# Low Fat



This meal contains 476kcal



This meal contains 365kcal

**Overall saving = 111 kcal**

York Teaching Hospital



NHS Foundation Trust



# Snacking

- Choosing healthier snacks can help reduce calories.



353 kcal



124 kcal



201 kcal



Fruit loaf -  
130 kcal



Apple –  
46 kcal



6 kcal



Veg sticks and low fat  
dip

104 kcal

York Teaching Hospital



NHS Foundation Trust



# Increasing Activity

Activity	Calories used (per hour) for an 82kg person	Calories used (per hour) for an 120kg person
<b>Walking 3.5 miles/hour</b>	<b>353</b>	<b>516</b>
<b>Aerobics class</b>	<b>598</b>	<b>876</b>
<b>Swimming</b>	<b>394</b>	<b>576</b>
<b>Exercise bike (moderate)</b>	<b>557</b>	<b>816</b>



# Behavioural support

- Keep Track
- Set goals
- Be positive
- Support
- Rewards (non-food based)

# Hints and Tips

- Only eat at planned times and stick to similar times each day
- Plan meals ahead for yourself and the whole family
- Chew slowly and take your time over food
- Don't shop for food when you're hungry. Keep to your shopping list
- Sit down at the table to eat and do nothing else while eating
- Set aside regular times for activities or classes. Make it a habit by planning to attend come rain or shine

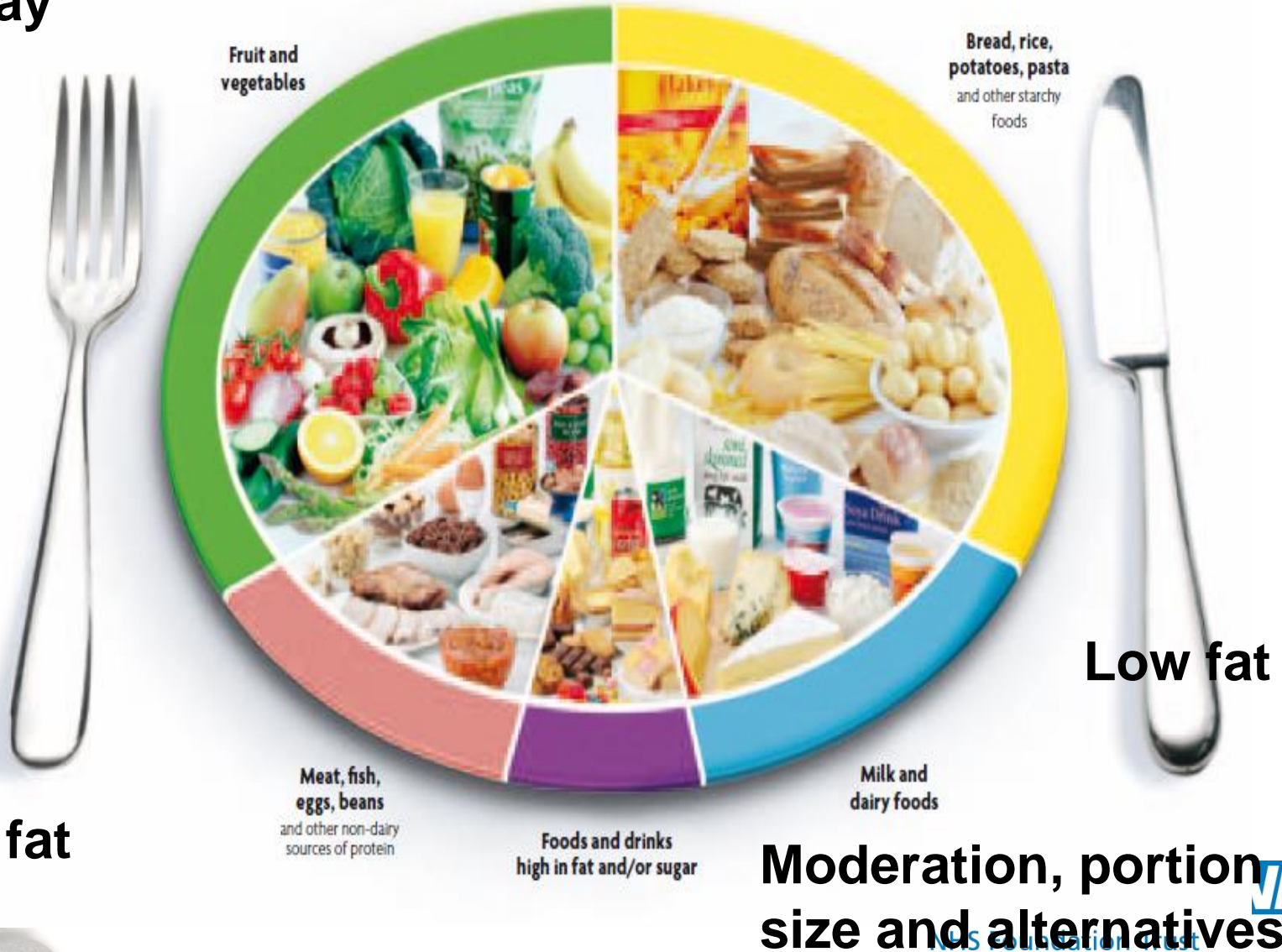
# Healthy Eating

- Helping patients begin to move towards the general recommendations for a healthier diet can be a useful starting point from which other dietary changes can eventually be incorporated. (DOM UK)

# The Eatwell Plate

5 a day

High  
Fibre





# Carbohydrates

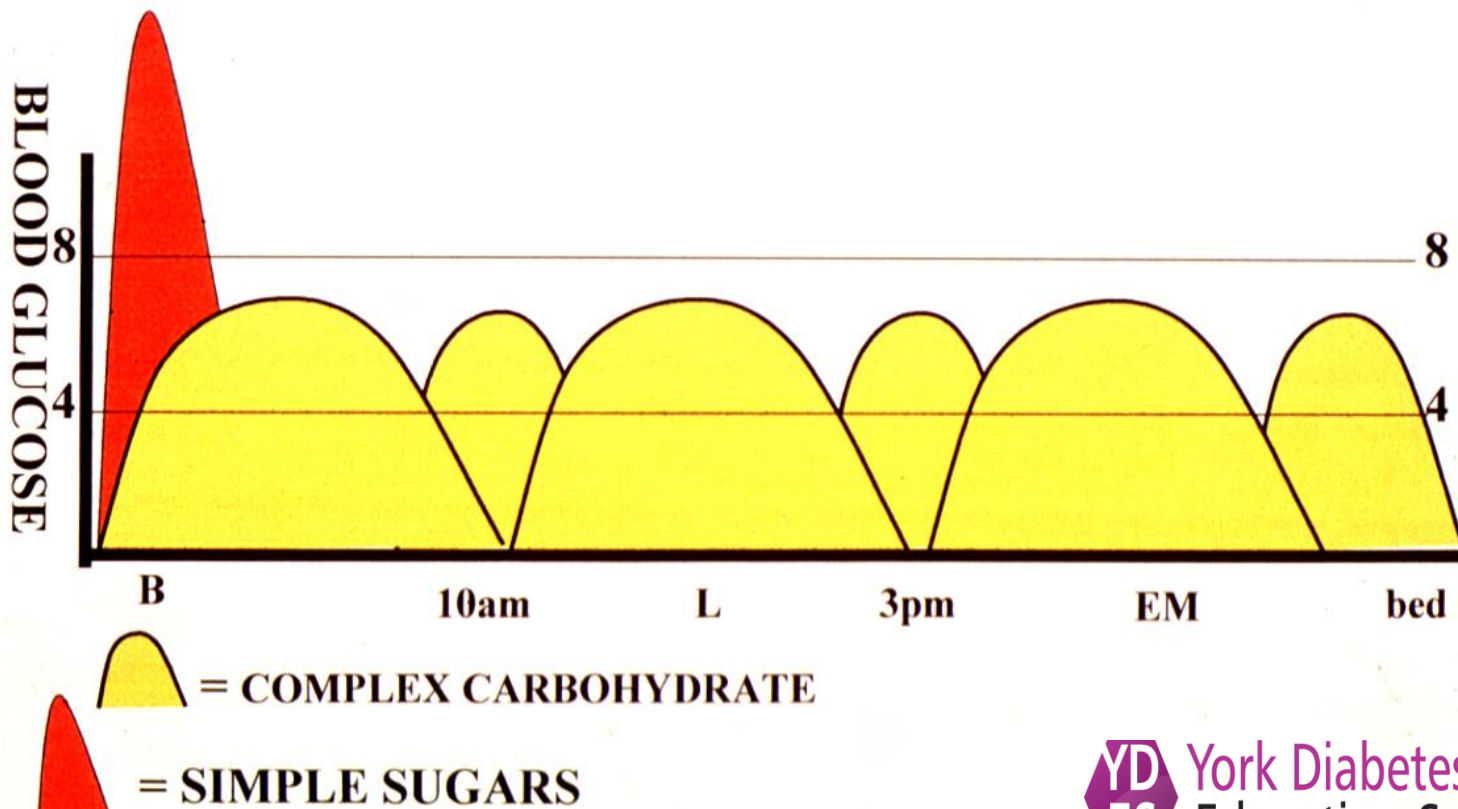
- Portions
- Timing
- Types





# Carbohydrates

## EFFECT OF CARBOHYDRATE ON BLOOD GLUCOSE





# Glycaemic Index (G.I.)

- This tells us how quickly your blood glucose will rise when you eat carbohydrate.
- Low G.I. Foods make your blood sugars go up slowly and last you longer.
- High G.I. Foods make your blood sugars go up very quickly and don't last very long.







# Factors Affecting GI

- **Fibre** - especially from oats, wheat, beans, peas, pulses, fruit and vegetables and salad.
- **Fat** - slows the emptying of your stomach.
- **Structure of food** - the more intact the food the longer it takes to digest, e.g. Granary bread.

# Implications of GI

- High GI foods should be avoided on their own e.g. white toast, cornflakes, mash potato, jacket potato with butter, rice, fruit juice, jam, marmalades
- Adding fibre to foods means that these foods do not need to be avoided completely.



# References

- Evidence based nutritional guidelines
- NICE obesity
- DOMUK obesity