

Nutritional Management of Diabetes.

Community Diabetes Dietitians
NHS Greater Glasgow & Clyde

Aims of session

- Gain an understanding of the influence of diet and nutrition to diabetes and diabetes care
- Explore the current dietary guidelines for the management of diabetes
- Provide healthy eating and lifestyle advice to people with diabetes in a person centred way

Nutrition & Diabetes Care

- Evidence of the importance of dietary management in diabetes care is strong
- Management of health risks:
 - Glycaemic control (Hba1c)
 - Reduce risk of hypoglycaemia
 - Reduce microvascular risk (blood pressure)
 - Reduce macrovascular risk (lipids, weight)
 - Weight management

Patient Education

- Clinic appointments
- Structured education
 - DAFNE or locally developed for Type 1 Diabetes
 - Conversation Maps for Type 2 Diabetes
 - Patient education programme for Ethnic Minorities
- Behavioural change is an important aspect of nutritional education
- Support people to 'self-manage' their condition

Type 1 diabetes

- People with Type 1 diabetes require insulin treatment
- Good nutritional management reduces risks to health
- Carbohydrate is the main nutritional consideration for glycaemic control in individuals with Type 1 diabetes
- Skills are needed to adjust insulin against carbohydrate eaten

Type 2 Diabetes

- Treatment may be by diet alone, diet and medication, injectables and or insulin
- Obesity is key risk factor for the development of the condition (UKPDS reports 80% of people are overweight or obese when presenting with Type 2 diabetes)
- Intake of saturated fat and inactivity are also independent risk factors (UKPDS)
- Low fruit and vegetable intakes have been linked to higher HbA1c in general population (EPIC Norfolk study)

Benefits of a 10% weight loss



- Fall of 50% in fasting glucose
- Fall of 10% total cholesterol
- Fall of 15% LDL
- Fall of 30% triglycerides
- Rise of 8% HDL
- Fall of 10 mmHg systolic, 20 mmHg diastolic

Ref: SIGN guidelines 116 Obesity Management

Diabetes UK Recommendations

'A healthy balanced diet'

- Promotes satiety / appetite control
- Improves weight management
- Improves blood glucose levels

What is a healthy balanced diet?

Regular eating pattern
Increase in fresh fruit and vegetables
Reduction in saturated fats, sugar and salt

Diabetes UK 2016

Include more beans and pulses

- e.g. kidney beans, butter beans, chickpeas, and red and green lentils – can help to control blood glucose levels and blood fats (low GI)



Sugar and sugary foods

- These foods and drinks are absorbed quickly by the body and will cause blood glucose level to rise rapidly (high GI)



Fat

- Total fat less than 35% total energy
- Reduce Saturated Fat
- Emphasis on Monounsaturated (MUFA) as preferred source of fat.
- Polyunsaturated (PUFA)



Aim for at least two portions of oily fish per week



- Oily fish contains Omega 3, a polyunsaturated fat that helps protect against heart disease
- Omega 3 helps the heart beat more regularly, reduces stickiness of the blood making it less likely to clot and protects arteries from damage by reducing inflammation.
- Dietary supplementation with omega-3 PUFA is not generally recommended in people with type 2 diabetes (SIGN 116)

Reduce salt in your diet to 6g or less a day

- Reductions in salt alone are effective in lowering blood pressure in both normotensive and hypertensive individuals
- Reduce salty foods e.g. cheese, crisps, pastries, pies, processed/tinned meats and processed foods.
- Reduce salt added at the table
- Salt substitutes not recommended



Alcohol



- 14 units per week men and women
- Have at least 2 alcohol free days a week
- Avoid drinking on an empty stomach
- Alcohol is more likely to cause hypoglycaemia (low blood glucose levels) with some diabetes medication
- Energy content

Avoid 'diabetic' foods or drinks

- Expensive
- Can contain the same amount of fat and calories
- Can have a laxative effect
- Will still affect blood glucose levels

Hypoglycaemia – who's at risk?

- People on sulphonylureas and conventional insulin need to be carbohydrate aware to avoid hypos
- Newer treatments may make snacks less necessary
- Consider review of treatment if consistent hypo's rather than increase food especially if overweight or obese.
- More blood glucose monitoring

Activity

- Regular physical activity associated with a reduced risk of development of type 2 diabetes
- Aim: minimum 30 minutes of physical activity on at least 5 days of the week
- Aids weight control
- Reduces depression, blood glucose (improves insulin sensitivity), blood pressure & cholesterol

Other Considerations

- Cystic Fibrosis
- Coeliac Disease
- Oral Nutritional Support
- Enteral Feeding
- Eating Disorders
- Renal Disease
- Religion/culture
- Older Person, dementia

References

- Evidence-based nutrition guidelines for the prevention and management of diabetes –May 2011. Diabetes UK
- SIGN guidelines no 115, 116
- www.diabetes.org.uk
- www.diabetesinscotland.org.uk
