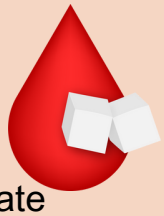
Diabetes Mellitus

Key points for providing a diabetes appropriate diet for your residents

What is Diabetes?



- Diabetes is a serious condition in which there is too much glucose (sugar) in the blood
- Our body breaks down carbohydrate containing foods that we eat or drink into glucose
- As part of normal metabolism, glucose is released into our blood. We need the hormone insulin (produced by the pancreas) to help move glucose from the blood into our cells where it can be used as energy
  However in diabetes, insulin is either not produced or not working effectively
- Around 1 in 4 care home residents have diabetes and a similar proportion may have undiagnosed diabetes

Illness and Diabetes

During illnesses you may see an increase in blood glucose (BG) levels and some diabetes medications may need to be reviewed. As BG tends to increase, it is important to check these more regularly. If your resident has T1DM also check for urinary ketones. Ensure that residents continue to eat/take carbohydrate in some form, during illness. Examples of carbohydrates to take in illness include milk, fruit juice, ice cream and yoghurt. It is also vital to ensure residents remain well hydrated during illness.

Hypoglycaemia

This is a lower than normal level of glucose in the bloodstream (4mmol/l or less).
Symptoms include:

- Dizziness
- Shaky
- Sweaty
- Anxious
- Headache
- Weak/ Tired
- Hungry
- Fast Heartbeat
- Blurry vision
- Nervous/ Upset

Types of Diabetes

- **Type 1 (T1DM):** Autoimmune disease – the body attacks the cells in the pancreas that make insulin, meaning it cannot be produced. Everyone with T1DM must take insulin
- **Type 2 (T2DM):** Most common type. This is where the insulin your pancreas makes can't work properly, or your pancreas can't make enough insulin. Treatment by diet alone or in combination with tablets and/or insulin

Signs + Symptoms of Raised Blood Glucose (BG)

Passing more urine than normal including during the night (polyuria/ nocturia)

Increased thirst (polydipsia)
Unexplained weight loss
Urinary incontinence
Loss of feeling or tingling in the feet

Recurrent infections
Increased risk of falls
Blurred vision

Cuts and wounds may take longer to heal
Tiredness + fatigue - sleeping more than usual
Please note: Diabetes review may be required

A BG level of <4mmol/l should be immediately treated with one of the options below:

•15-20g glucose e.g. 5-6 glucose tablets, 200ml apple/ orange juice, 150ml sugary drink e.g. coke, 5-6 jelly babies, 2x glucogel sachets

Check BG 10 minutes after treatment and treat again if level remains 4mmol/L or below. Once BG is > 4mmol/L, offer:

•10-20g slower acting carbohydrate e.g. sandwich, 200-300ml milk, 2x biscuits, bowl of cereal or next meal. Or it could be the next meal, if it's due within 30 minutes

Remember: to keep in line with local guidelines and the treatments you have access to

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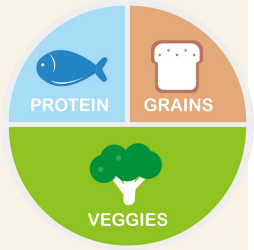
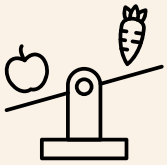
Diet and Diabetes



The key is to offer a healthy, balanced diet and aim for a healthy weight. Aim for:

- 1/2 of the plate to be filled with vegetables or salad
- 1/4 of the plate to be filled with high fibre carbohydrate
- 1/4 of the plate to be filled with a protein source



Malnutrition and Diabetes

Healthy eating changes may be unsuitable for residents who are malnourished or at risk of malnutrition. Offer food fortification using 'food first' approach:

- Avoid very sugary foods (particularly between meals), which provide no other nutritional value (such as full sugar juice)
- Increase 'healthy fats' provided in diet e.g. peanut butter, nuts, additional olive oil and olive spreads
- Increase sources of protein in diet
- Offer low sugar snacks like fortified milk and yoghurt

Suitable Snack Options

- Crackers or toast and cheese
- Sandwiches with meat, cheese, egg or fish and mayonnaise
- Oatmeal or digestive biscuits with butter
- High fibre cereal (avoid sugar coated varieties) or porridge

- Full fat yoghurts (with no added sugar)
- Reduced sugar custard or rice pudding with cream added
- Sugar free jelly with fruit and cream

- Handful of nuts
- Crisps/breadsticks and dips
- Milk or hot milky drinks (with no added sugar)

Carbohydrates and Fibre

Carbohydrates: These are the bodies main source of energy. They have an impact on BG levels so it's important to know which foods contain them. Typically they can be divided into starchy and simple sugars

Starch	Added Sugar
Bread, crackers, cereals, potatoes, pasta, flour, rice, chapattis, couscous	Table sugar, sugary drinks, desserts, sweets, jelly, chocolate, syrups

Fibre: Most 'slow releasing' carbohydrates are less processed and higher in fibre. High fibre foods can help control BG levels as they are broken down more slowly by the body. Examples of high fibre foods include: oats, pulses, wholegrain cereals and bread, brown rice, fruits and vegetables

Additional nutrients

Protein: No impact on BG. Required to build and repair tissue. Examples of protein foods include: Meat, poultry, fish, beans and pulses, tofu, dairy and nuts and seeds

Fats: No impact on blood glucose. Examples include: butters and oils, nuts, avocado, and seeds.

Dairy: Milk, cheese and yoghurt are good sources of protein and calcium. Check for added sugar. Ensure dairy alternatives are fortified with calcium

Sugary drinks

Sugary drinks should be avoided. Offer sugar free or diet drinks and avoid/limit added sugar to hot drinks. This includes fruit juice which should be limited to 150ml/day. Use sweeteners instead of sugars such as Canderel, Splenda, and Truvia.