



Dr Vanderpump's Patient Information

High and low blood glucose Signs and Treatment

When blood glucose (sugar) levels are too high this is known as **Hyperglycaemia, ("Hyper")** when they are too low it is known as **Hypoglycaemia ("Hypo")**. For most people we would not want the glucose level less than 4.0 mmol/L

Either way you will need to take some action.

The following are the warning signs of a hypo starting, these will happen quickly. In fact friends and families may notice these before you do so make sure you provide them with information about how to help you.

You may experience one or more of the following - everyone has their own symptoms:

- Feeling hungry and perhaps nauseous
- Trembling or shakiness
- Light-headedness/dizziness
- Weakness or fatigue
- Sweating, chills and clamminess
- Anxiety or irritability
- Going pale
- Pounding heart with rapid pulse
- Tingling/numbness of the lips or tongue
- Blurred vision
- Difficulty in concentrating/co-ordinating
- Vagueness or confusion
- Irrational behaviour

Hypo: what to do

Where possible it is recommended to confirm you are hypo with a blood glucose test. Left untreated a hypo will lead to a state of unconsciousness so the first action is to take 15 to 20 grams of a quick acting carbohydrate like:

- One – third of a 380 ml bottle of Lucozade or a non-diet drink or
- Three or more glucose tablet (check the label this varies per brand) or
- Five sweets like jelly babies or
- A small carton or 150 to 200 mls of pure fruit juice

It would be a good idea to keep some form of carbohydrate snack on you when you are out and about

If possible check your blood glucose after 15 minutes; if you are still hypo repeat the first action. If not – to prevent blood glucose levels dropping again – you should eat something which has a longer acting carbohydrate like:

- Half a sandwich or
- Fruit or
- A Small bowl of cereal
- Or biscuits and milk
- Or the next meal if it is due

(The exact quantity of all the above will vary from person to person)

Explain to your friends and family what to do if you become unconscious:

- They should not give you any food or drink
- They should put you in the recovery position and call an ambulance immediately
- If you have been prescribed with Glucagon they should inject you with this

A hypo may be a one off or you may see a pattern emerging over several days. It is helpful to explore why a hypo may have happened to avoid a re-occurrence.

It could be **something immediate** like a missed or delayed meal, alcohol consumption, too much insulin or increased exercise - not necessarily going to the gym; these could be activities like shopping, dancing or gardening.

OR it may be **something longer term** like a dietary change, weight loss, stress, illness or hot weather

You may experience one or more of these signs or symptoms of Hyperglycaemia

- Feeling very thirsty
- Frequently passing urine
- Dry mouth
- Headaches
- Blurred Vision
- Feeling lethargic and maybe irritable
- Stomach pain

Left untreated these Hyper symptoms may lead to you becoming short of breath, drowsy or even unconscious – leading to hospital admission.

Some Hyper symptoms are similar to hypoglycaemic symptoms so if you check your blood glucose level carry out a test to confirm what your glucose is rather than rely on how you feel.

Hyper: what to do

If your blood glucose is high and this is not because of a lack of insulin there are two main things you can do:

- Go for a walk (rather than take vigorous exercise)
- Keep hydrated

Look for blood glucose patterns and trends. Long term high blood glucose levels increase your risk of developing diabetes complications so it's worth exploring why this has happened - there could be several reasons:

- Not using enough medication
- Missing a dose of your medication
- Eating more carbohydrate than your body/medication can cope with
- Stress
- The overtreatment of a hypo
- Problems with injecting the insulin or using out of date insulin
- Being less active than usual
- Have an illness or infection

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