

SICK DAY RULES

How to cope with T1D when ill

INTRODUCTION

When you have diabetes, it's important to know how to cope when you're unwell.

Everyone has days when they are not well. If you have diabetes, being unwell can affect your glucose control so it is important that you know how to manage this.



BASICS

How being ill can affect your diabetes

Illness and infections, is a form of **stress**, and can **raise** your blood glucose (sugar) levels. As part of the body's defence mechanism for fighting illness and infection, **more glucose is released into the blood stream** to give your body energy. This can happen even if you're off your food or eating less than usual.

People who don't have diabetes **just produce more insulin** to cope. But when you've got diabetes, your body can't do this. The **symptoms of diabetes** can add to those of the original illness or infection and make it much worse.

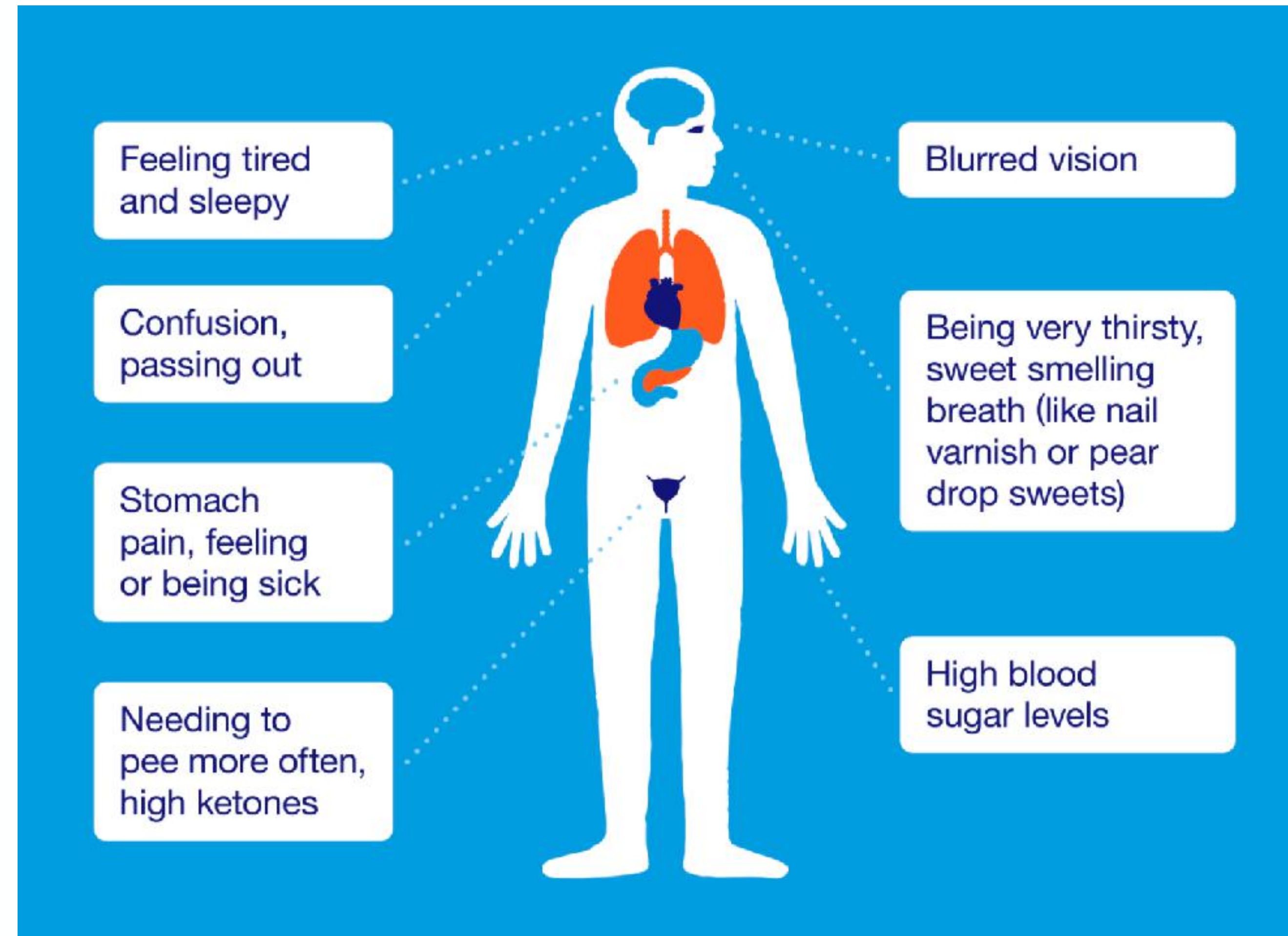
Feeling or being sick, or having diarrhoea can make your blood sugar levels drop, because you're not absorbing food as usual.

Your body is working overtime to fight the illness, making it harder to manage your diabetes. This means you're more at risk of having serious blood sugar highs and lows, potentially leading to

DKA (diabetic ketoacidosis) or HHS (hyperosmolar hyperglycaemic state).

WHAT IS DKA?

DKA happens when there is severe lack of **insulin** in the body. This means the body can't use sugar for energy, and starts to use fat instead. When this happens, chemicals called **ketones** are released. Ketones are a type of chemical that your liver produces when it breaks down fats.



ketones can build up and make your blood become **acidic** – hence the name **acidosis**. DKA is serious and potentially life threatening if it is not treated fast



The signs of DKA include:

- high blood sugar levels
- being very thirsty
- needing to pee more often
- feeling tired and sleepy
- confusion
- blurred vision
- stomach pain
- feeling or being sick
- sweet or fruity-smelling breath (like nail polish remover or fruit)
- passing out.

(HECKING FOR KETONES)

We readily get
Urine Ketone
strips. There are
also a few blood
ketone meters.



SICK DAY RULES

1)

NEVER STOP TAKING INSULIN EVEN IF NOT EATING, THOUGH DOSES MAY NEED ADJUSTING.

Seek advice early on having guidance in how to do this. Most likely insulin doses need increasing in response to illness, even if not eating.



2)

Sickness can make your body less responsive to the effects of insulin
Check **glucose levels every 4- 6 hours** (day and night) and **ketone levels every 2-4 hours** when unwell



3)

Keep well hydrated (2.5-3.5 litres fluids/day)
Prevent dehydration by drinking plenty of sugar-free fluids. Sip gently throughout the day



4)

When unwell, if unable to eat full meals, take **snacks and fluids** that contain glucose, as the body needs this extra glucose for energy. Additional insulin will also help the body to utilise this.



5)

Rest: avoid strenuous exercise



6)

Treat symptoms such as a high temperature or a cough with **basic over-the-counter medicines** such as painkillers and cough syrups. These do not have to be sugar-free varieties as they contain very little glucose and are taken in small quantities. Ask your doctor for advice



WHEN TO GO TO THE HOSPITAL

Get to hospital urgently if any of these apply to you:

- If you are pregnant and have ketones
- If you vomit for the duration of 2 meals (i.e. 4 hours) and are unable to keep fluids down
- If you have persistent ketones despite increasing your insulin
- If you become drowsy and/or breathless
- If you have acute abdominal pain
- If your condition worsens despite following the sick day rules

Constantly stay in touch with your doctor!!!



STEP BY STEP (HART

Feeling Unwell?

If you feel these:

(Thirst, nausea, urinating more frequently, feeling tired.)

CHECK BLOOD SUGAR

Target : 90 - 250 mg/dL
If its higher

CHECK KETONES

(Especially if you are vomiting)
Vomiting is an early symptom of positive ketones.



General Action

REST



Excessive physical activity can raise blood sugar levels.

HYDRATE



Aim to drink 2-4 Litres of sugar free liquid over 24 hours. NO Alcohol as it worsens dehydration and increases chance for ketones.

USE



Use cough medicine and painkillers as needed.

EAT



Eat easily digestible sugar containing food for energy. E.g Milk, Yoghurt, Sweetened Fruit Juice or ice cream.

CHECK



Check levels every 4-6 hours when unwell (day and night). Check Ketones every 2-4 hours. Ketones cause FRUITY breath.

If Sugars and Ketones are ELEVATED, continue above points and
FOLLOW KETONE ADVICE ZONE BELOW & NEVER STOP INSULIN
Only a few hours of elevated sugars and shortage of insulin is needed for ketone production.

**Blood Ketone levels LESS THAN 27 mg/dL or
Urine Ketones LESS THAN +1**

- Monitor blood glucose every 4-6 hours and ketones every 2-4 hours.
- Aim to the usual insulin dose
- Increased insulin dose* as advised below if blood glucose level is above 250 mg/dL
 - 250 - 305 mg/dL = Add 2 units to each dose
 - 305 - 400 mg/dL = Add 4 units to each dose
 - More than 400 mg/dL = Add 6 units to each dose.

Remember to test urine ketones on a FRESH sample each time.

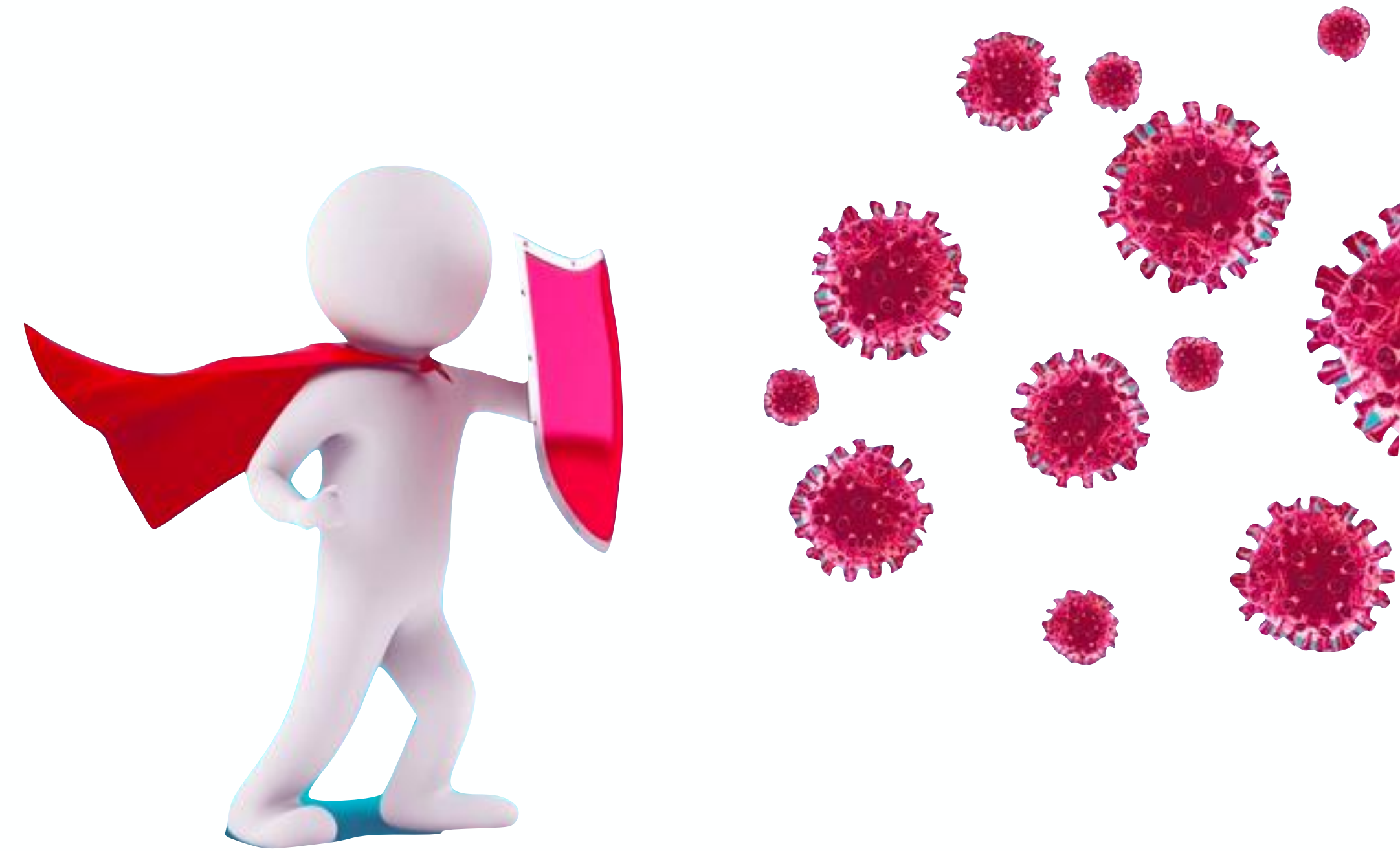
**Blood Ketone levels MORE THAN 15mg/dl or
Urine Ketones MORE THAN +1**

- Calculate Total Daily Dose (TDD) Insulin = (basal dose + average of total bolus) OR (total daily mixed insulin dose)
- If blood Ketones 15-30 mg/dl or urine ketones + to ++ give additional 10% of TDD as rapid acting or mixed insulin every 2 hours
 - If blood ketones above 30 mg/dl or urine ketones +++ or more, give additional 20% of TDD insulin as rapid acting or mixed insulin every 2 hours

Keep testing blood glucose and ketones every 2 hours day and night..

STAYING SAFE RIGHT NOW

- Social distance as much as possible
- Always wear masks / face covering
- Practice good hand hygiene
- Monitor more frequently
- Steam Inhalation regularly
- Avoid public transport / gatherings as much as you can
- Avoid touching your face often



STAY WELL AND STAY SAFE

QUESTIONS?