### How diabetes can affect sleep

- Diabetes and pre-diabetes has been linked to problems sleeping well.
- Effects of lack of sleep or poor sleep quality include and are not limited to:
  - Mental abilities: Poor attention, concentration and memory, impaired judgment, and reaction time
  - **Emotional state:** Irritability and other mood disturbances, difficulty managing intense emotions
  - Physical state: Fatigue, weakened immunity, high blood pressure, weight gain

### How diabetes can affect sleep

- High blood sugar (hyperglycaemia) and low blood sugar (hypoglycaemia) during the night can lead to **insomnia and next-day fatigue.** 
  - When blood sugar levels are high, the kidneys overcompensate by causing you to urinate more. During the night, these frequent trips to the bathroom can disrupt sleep. High blood sugar may also cause headaches, increased thirst, and tiredness that can interfere with falling asleep.
  - In contrast, going too many hours without eating or taking the wrong balance of diabetes medication can also lead to low blood sugar levels at night. This can cause nightmares, or wake you up at night drenched in sweat, or make you feel irritated or confused when you wake up.



## Sleep problems in diabetes

- As with many chronic conditions, the emotional struggle of coping can contribute to depression or stress about the disease itself. These affect your stress-related hormonal cycle and disrupt your sleep cycle. You may take longer to fall asleep, be awake more than usual through the night or wake far too early in the morning.
- Insomnia happens when a person experiences sleep difficulties and related daytime symptoms, like fatigue and attention issues.
- Those with insomnia commonly feel distressed about their inability to sleep and daytime symptoms caused by sleep issues.
- The distress and frustrations of not being able to fall asleep, worries and fears from not sleeping can reinforce the sleep difficulties. Symptoms can be severe enough to affect your work or school performance, as well as social or family life.

#### Talk to your doctor about sleep issues.

Based on your personal situation, your doctor may be able to recommend sleep aids or additional ways to get better sleep. They may even conduct a sleep study, to see if a sleep disorder is a potential contributor to your sleep problems.

Common sleep disorders in diabetes:

- Obstructive sleep apnoea
- Restless leg syndrome

# Dangers of nocturnal hypoglycaemia!

When blood sugar falls **below 4.0 mmol/L while sleeping** at night, the person experiences **nocturnal hypoglycaemia** or "night-time hypo". This can be dangerous and cause sudden death.

Some ways to avoid it:





Test your blood sugar levels before bed.

Avoid skipping meals, including dinner.

Avoid physical activity at night.



Look out for warning signs: Restlessness and irritability, hot, clammy or sweaty skin, trembling or shaking, changes in breathing, nightmares, and racing heartbeat.



Consult your doctor about nocturnal hypoglycaemia.

## Helpful ways to improve sleep quality



Maintain a regular bedtime and wake time routine.



Exercise regularly. Light exercise can be included in the evening.



Avoid large meals before bed.



Avoid nicotine, alcohol and caffeine 4-6 hours before bedtime.



Switch off or avoid using electronic device (e.g., mobile phone, computer or television) at least 30 minutes before bedtime.



Keep your bedroom dark, cool, quiet and comfortable.