

InSight Vet CGM



CGM Introduction



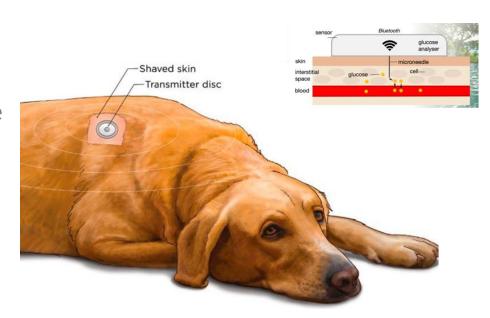
Continuous Glucose Monitors (CGMs) are devices that can attach to a patient for up to two weeks, measuring glucose levels in the interstitial fluid during that time. In recent years, these devices have become more affordable and applicable in veterinary medicine.

Compared to traditional blood glucose testing, CGMs provide real-time comprehensive glucose data, enabling users to manage glucose levels more accurately, making them essential tools for managing diabetic patients.

CGMs consist of three main components:

- 1. A flexible electrode inserted through a guide device into the interstitial (subcutaneous) space of the patient's skin.
- 2. A small transmitter attached to the probe, which adheres to the patient's skin surface.
- 3. Monitoring software (using a smartphone).

 The sensor is compatible with X-rays but not with computed tomography or magnetic resonance imaging. In human devices, CGMs can be directly connected to an insulin delivery system.



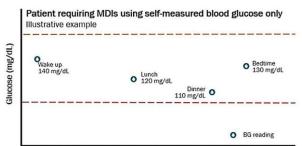




CGMs vs. Traditional Blood Glucose Testing

Traditional BG Testing

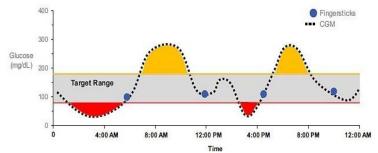
- ☐ 10+ blood samples per day to draw the curve
- One-time measurement, cannot reflect the full picture
- ☐ No real-time hypo/hyperglycaemia alerts
- Painful and stressful for pets, difficult for pet owners to operate





CGM

- ✓ CGMs (Continuous Glucose Monitors)
- ✓ No frequent blood sampling
- ✓ Up to 14 days of continuous monitoring
- ✓ Comprehensive reports, providing valuable insights for informed decisions
- ✓ Real-time alerts







Human CGM vs. Pet CGM



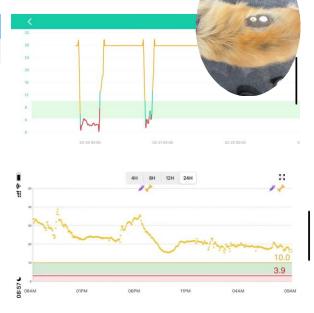
Why Should you use CGM Specially Designed for Pets

Human CGM

- ☐ Glucose range is designed for humans
- ☐ Algorithm is designed for humans
- No after-sale service







Pet CGM

- ☐ Specially designed calibration algorithm for cats and dogs
- ☐ Specially designed probe for pets
- ☐ The glucose thresholds, parameters and alert ranges are suitable for cats and dogs
- ☐ InSight Vet CGM App allows veterinarians account to monitor data for multiple diabetic pets













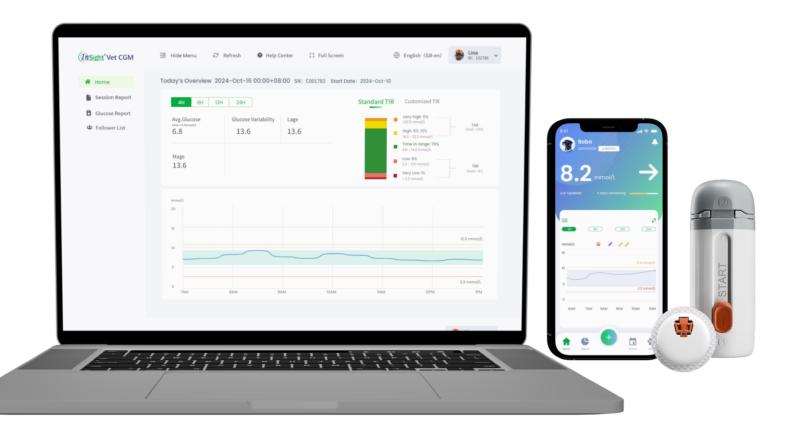
- ☐ Owner feels supported and can easily cope with the care of their diabetic pet
- ☐ Resolution of clinical signs
- ☐ Avoidance of insulin-induced hypoglycaemia

When to use a CGM

- ☐ Rapidly improve diabetic control
- ☐ To understand a specific problem
- ☐ The owner wants to use it.
- ☐ Sick diabetics in hospital

Dr. Linda Fleeman, Animal Diabetes Australia





CGM Introduction





	<u> </u>
Data Interval	3 minutes
Monitoring Up To	14 days
Calibration	Factory Calibration
Waterproof	IP27
Shelf Life	18 months
Age	8 months+
Warm-up Time	30 minutes
MARD (Mean Absolute Relative Difference)	7.38%
Prediction Trend	Yes





Product Composition





Applicator

- ☐ Disposable
- Passive activation



Sensor

- Bluetooth connection
- One data point every three minutes, monitoring for 14 days
- ☐ Flexible probe, comfortable and imperceptible to wear
- ☐ IP27 protection rating, water-resistant
- ☐ For daily use



App & Web Portal

- Receive data through a compatible smartphone app
- ☐ Cloud-based portal for analysing and generating blood glucose reports
- ☐ Facilitates sharing with Vets and other owners



Software





1. Sensor detects glucose and sends data to smart device via Bluetooth.



2. App receives glucose data. Displays real-time glucose and generates reports.



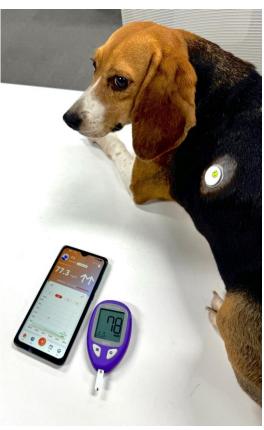
3. The doctor-side management dashboard retrieves blood glucose data from the cloud, making it convenient for doctors and pet owners to manage their pet's blood glucose levels.



Animal Test









Animal Data Overview



Sensor	Name	Date Started	Date Removal	Data Overview	
F0974	Victor (Dog)	2023-08-25 12:20	2023-09-08 14:00	25 20 20 20 20 20 20 20 20 20 20 20 20 20	Upon removal, a slight shedding phenomenon was observed, and hair growth in the excised area is relatively rapid.
F1075	Pea (British Shorthair)	2023-08-25 12:20	2023-09-08 14:13	20 20 20 20 20 20 20 20 20 20 20 20 20 2	
C000294	Miaomiao (British Shorthair)	2024-07-03 17:20	-	- May many many many many many many many ma	- Andrewson of the second of t







InSight Vet CGM App Introduction

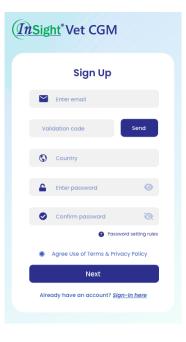
Download App & Sensor Pairing



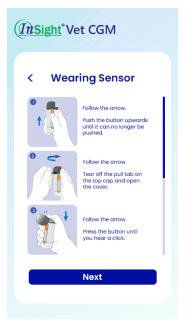
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Follow the instructions in the app and pair the sensor





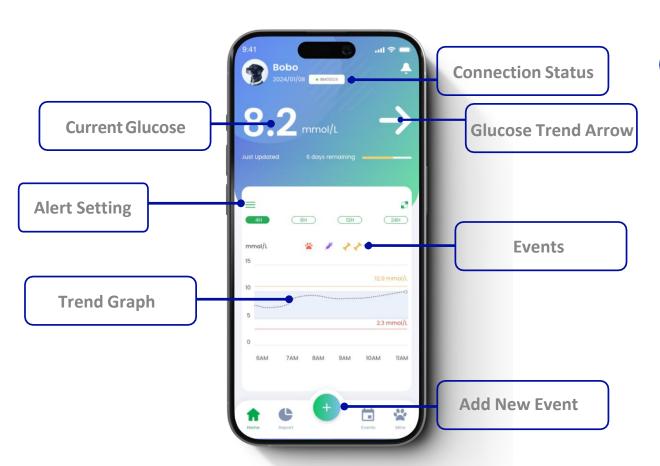












Trend Arrow Definition

$\uparrow \uparrow$	Glucose is rapidly rising	
↑	Glucose is rising	
7	Glucose is slowly rising	
\rightarrow	Glucose is steady	
7	Glucose is slowly falling	
\	Glucose is falling	
$\downarrow \downarrow$	Glucose is rapidly falling	





35 years years

- Average Glucose Level: The average of all glucose measurements during sensor monitoring, used to evaluate overall blood glucose levels.
- ☐ Maximum Blood Glucose Fluctuation: Evaluates the maximum fluctuation in blood glucose levels, specifically the difference between the highest and lowest glucose readings of the day.
- Coefficient of Variation: The degree of dispersion of all glucose measurements during sensor monitoring, used to assess blood glucose variability.
- Mean Amplitude of Glycaemic Excursions (MAGE): Evaluates the extent of intra-day blood glucose fluctuations. After removing all glucose fluctuations that did not exceed a certain threshold, the average value is calculated based on the first valid fluctuation direction to reflect blood glucose variability.
- Mean of Daily Differences (MODD): Evaluates the degree of inter-day blood glucose fluctuation, reflecting the consistency of blood glucose levels from day to day. It is the average of the absolute differences between corresponding measurements within a complete 48-hour period. The MODD for a specific day reflects the fluctuation in glucose levels between that day and the previous day.
- Estimated Glycated Haemoglobin (eA1C): Glycated haemoglobin (HbA1C) is considered the gold standard for blood glucose control and is related to microvascular and macrovascular complications in diabetes. It reflects the average blood glucose level over the past 2-3 months (110 days in dogs, 70 days in cats). In other countries, the cost of testing pet A1C is at least 99 USD, and the blood sample needs to be sent to a specialised laboratory for testing. The more glucose data available from the CGM, the more accurate the estimated A1C will be. Additionally, the level of A1C reduction is positively correlated with the frequency of CGM use.



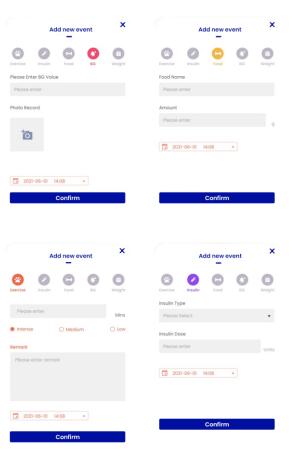




Add Events







Recording events and observing blood glucose data allows pet owners and veterinarians to adjust the pet's diet and behaviours more promptly.

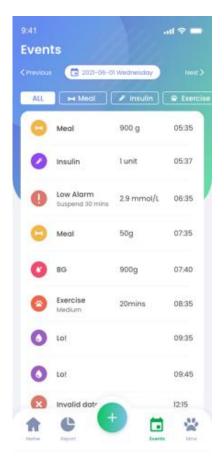
For example, when pre-meal blood glucose levels rise, reducing carbohydrate intake in the pet's food or taking a walk after meals can help prevent blood glucose spikes.

Using a CGM can also prevent hypoglycaemia during outdoor activities. By monitoring trends and receiving early warnings, pet owners and veterinarians can adjust the pet's insulin dosage before and after exercise to prevent blood glucose fluctuations.

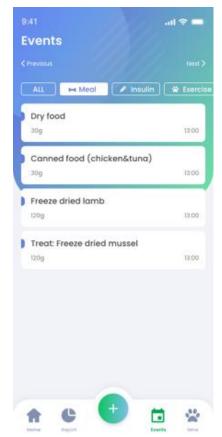


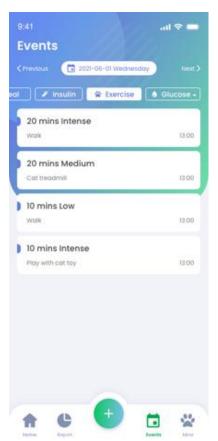
Events List

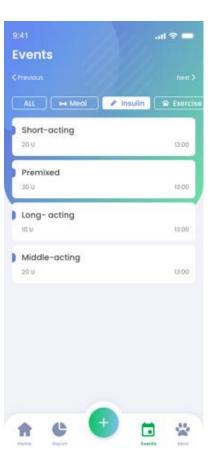






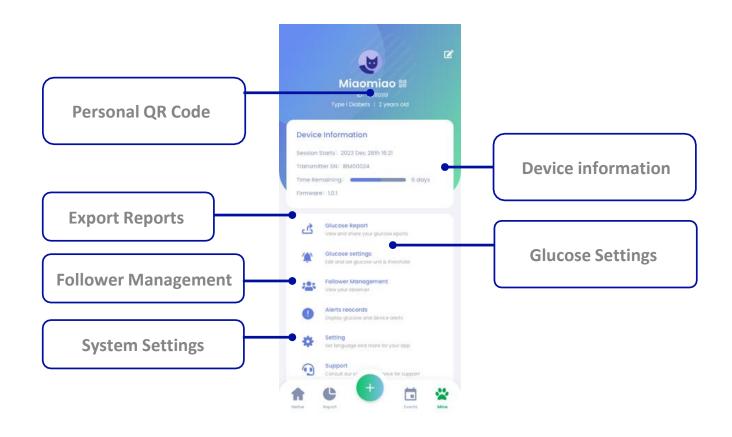










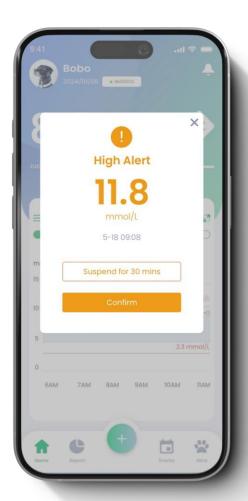


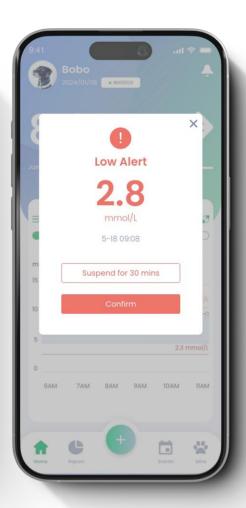






When high or low glucose events occur, the app will send real-time notifications, allowing pet owners to take timely action.







InSight Vet CGM App













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Web Dashboard



www.user.insightvetcgm.com







Thank You