

# Diabetes: Low Blood Glucose (Hypoglycaemia)

## Summary



The brain cannot use any other source of energy other than glucose!

It does not store or produce glucose itself so a steady source is essential for normal function.

### Hypoglycaemia

=  
blood glucose level  
**less than 3.33 mmol/L**  
(less than 60 mg/dL)

## What to do if you suspect low blood glucose levels?

If your pet is conscious and able to swallow:

- Feed a tasty meal. Hand-feeding might be necessary to encourage your pet to eat
- If your pet refuses to eat, rub 1 – 2 teaspoons of honey or syrup onto your pet's gums (Glucose powder can also be used)
- Monitor for changes in behaviour (If a blood glucose meter is available check your pet's blood glucose level as needed)
- Call your veterinarian for further advice

If your pet is weak and unable to swallow:

- Rub 1–2 teaspoons of honey or syrup onto your pet's gums (Glucose powder can also be used)
- Take your pet to the closest veterinary clinic for further assessment



**Warning!**  
DO NOT force feed a pet that cannot swallow as this can lead to aspiration pneumonia!

## Changes in behaviour that may indicate low blood glucose

- Unwilling to eat
- Vomiting
- Diarrhoea
- Dull
- Lethargic | Tired
- Restless | Pacing
- Panting
- Disorientation
- Acting blind
- Drunken walk
- Weak
- Collapsed
- Tremors | Twitching
- Seizures

## Possible causes of low blood glucose

### Insulin overdose

#### Related to diabetes

- Giving insulin at **irregular** intervals
- Giving insulin injections when a pet is not eating well
- Giving too high an insulin dose
- Not mixing the insulin correctly
- Using incorrect insulin syringes (U-40 versus U-100)
- Undetected diabetic remission (common in cats)
- Giving insulin when a pet has been exercising excessively
- Increased sensitivity to insulin in non-spayed (intact) females at the end of diestrus

#### Other Causes

- Xylitol (sweetener) toxicity
- Cancers | Insulinomas

### Other causes

#### Increased use of glucose

- Sepsis | Infections
- Pregnancy
- Extreme exercise
- Seizures

#### Decrease glucose production or absorption

- Toy breeds and young puppies/kittens with lack of reserves
- Liver problems such as a liver shunt
- Hormone problems (Addisons)
- Maldigestion
- Malnutrition
- Vomiting
- Diarrhoea
- Intestinal parasites

### Remember

**1. Check what brand/strength of insulin you are giving**  
Different brands of insulin have different strengths  
e.g. 40 Units per ml vs. 100 Units per ml

**2. Ensure you use the correct insulin syringe**  
Different sized syringes have different graduation markings  
e.g. The markings on a 1-mL insulin syringe = 2 units vs. markings on 0.5-mL insulin syringe = 1 unit

## What to do if your diabetic pet does not eat before the insulin injection

- Tempt your pet to eat via hand- or spoon-feeding, if unsuccessful syringe feeding can be attempted BUT must be done carefully. Offer small amounts and allow mouthfuls to be completely swallowed before the next is given
- If you have a handheld glucose meter do a spot blood glucose check
- Contact your veterinarian for advice

As a general rule:

**Half the usual dose** of insulin should be administered if your pet has eaten less than the normal amount.

Monitor your pet closely for changes in behaviour.

**Warning** ⚠️

**DO NOT GIVE INSULIN** if your pet is acting abnormally or a blood glucose is reading low.

Contact your veterinarian for further advice.

## How to avoid low blood glucose levels in diabetic patients



Administer insulin at regular intervals



Feed consistent meals at fixed times each day



Regular veterinary check ups and blood glucose curves allow the most appropriate dose of insulin to be given



Be aware of the behaviour changes seen in pets with low blood glucose



Keep glucose powder/honey at home in case of emergencies



Know where your closest 24 hr clinic is in case of emergency

Log your pet's glucose with Pets on tapp™ and share with your veterinarian



Q Pets on tapp



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