

Recurrent fainting and falling

What is fainting?

Fainting or “passing out” (syncope) is a sudden loss of consciousness and posture. For its function, the brain requires a continuous supply of oxygen and fuel (sugar) that are supplied by the normal blood flow. Therefore, when the blood pressure or blood sugar concentration drop, some brain functions shut down and the patient loses consciousness and falls. If your pet faints, the episode occurs suddenly and unexpectedly, it lasts for a short period of time, usually a few seconds, and recovery is spontaneous, rapid and uneventful. There are times when fainting may look like a seizure. Pets may faint for a variety of reasons, including exhaustion, overheating, low blood sugar (“hypoglycaemia”) and abnormal heart rhythm (arrhythmia). In people, fainting can have a benign nature, like standing too fast or strong emotions. However, pets usually faint due to underlying clinical conditions, and some of these conditions can be life-threatening.

How is fainting diagnosed?

The diagnosis of fainting is primarily based on a history of episodic falling accompanied by loss of consciousness. Pets that faint will be recumbent and unresponsive. The owner may also note episodes of

“vacancy” where the pet appears unaware of the surrounding environment for a few seconds without falling. Given the episodic nature of fainting, affected patients often have an unremarkable physical examination, normal blood tests and normal ECG recording. In case of daily episodes, a 24-hour ambulatory ECG recorder (“Holter” monitor) [picture above] might be used to capture an abnormal ECG event, which is usually a heart rate that is either too slow (bradycardia) or too fast (tachycardia). However, when the fainting episodes occur less frequently, the most suitable diagnostic test is an “event recorder” (ER). There are several types of ER; however, the implantable loop recorder represents the most sensitive and reliable device to capture an episodic abnormal ECG. When fainting occurs, the ECG recorded during the event can be analysed and, if abnormal, the appropriate treatment can be instituted. If ECG during the event results normal, abnormal heart rhythm can be ruled out and other less frequent causes can be investigated.



What is an implantable loop recorder?

The Implantable Loop Recorder (Medtronic *Reveal*) [picture on the right side] is a monitoring system that records subcutaneous ECG continuously for up to 14 months. The Reveal is inserted surgically under general anaesthesia in a small pocket created under the skin of your pet, on the left side of the chest. The system can be programmed to automatically record excessively slow or fast heart rates. Moreover, the Reveal can be manually activated by the pet’s owner by using a dedicated remote activator. Once the ECG has been saved and stored, the trace can be retrieved with a dedicated scanner placed over the device.



How to use the Activator

- 1) When you witness a fainting episode of your pet, take the activator [picture below] and hold it over the device.
- 2) Press the white button and look for the light. A flashing **green light**, next to the symbol indicates

that the event has been saved. However a flashing **yellow light** by the symbol indicates “Error”. If this happens, please hold the Activator over the device and press the white button again. Repeat until you see a flashing green light. With the manual function you can save up to 3 events. Please remember that if you activate the device more than 3 times the system will save only the first or last 3 events, depending on the program setting.



- 3) After manual activation, call us immediately to schedule a follow-up appointment.

Are there risks associated with an ILR?

Possible risks associated with the ILR implant include, but are not limited to, infection at the surgical site, device migration, erosion of the device through the skin, and/or sensitivity to the device material. If your pet has an ILR and you observe or suspect any of these complications, please contact us immediately!

This handout provides a general overview on this topic and may not apply to all patients.

Please do not hesitate to contact us if you require any additional information. (www.cardiospecialist.co.uk)