



## ELECTROCARDIOGRAM

When any irregularity of the rhythm of the heart beat is detected on clinical examination, it is not uncommon for the veterinary surgeon to suggest that an electrocardiogram (ECG recording) should be undertaken. The minutely small electrical impulses normally generated by the heart are amplified 3,000 or more times and recorded by the ECG machine.

For the examination the dog is usually restrained in a standing or lying position and electrodes are attached to all four limbs and sometimes to the side of the chest. A jelly is applied to facilitate electrical conduction between the dog and the electrodes and sometimes small patches of hair are clipped to ensure better contact. The equipment merely records the electrical impulses from the dog and there are no unpleasant sensations nor is there any danger whatsoever to the animal.

In some cases a more prolonged ECG examination is required and today there is special recording equipment in a carrying pack for the dog so that long term recordings over 24 hours or more can be made. This is a technique that is becoming more commonly used to diagnose precisely the reasons for intermittent collapse in dogs with abnormal heart rhythm. Often an ECG examination is combined with radiography (x-rays) and ultrasonography. The advantage of ECG examination however is that no sedation or anaesthetic is used on the animal at all. Its disadvantage is that generally it is only reliable in evaluating changes in heart rhythms.