

# BARKINSIDE SANCTUARY





## LEISHMANIASIS

Barkinside advises that all dogs in and from Spain should have a blood test annually.

Dogs are the main host and main reservoir of *Leishmania infantum*, a parasite that causes death in symptomatic dogs (*canine leishmaniasis*), when not treated. This parasite is transmitted through the bite of a sandfly (a small insect related to mosquitoes and flies) in tropical and subtropical countries, but direct transmission between dogs, and from pregnant dogs to their puppies, exists.

If caught early and not affecting the main organs, Leishmaniosis can be treated and controlled very effectively and the dog can lead a long and happy life.

A dog's immune response can contain the infection, preventing active disease, for months-to-years; it can take up to 7 years from the point of infection before signs of disease develop.

Canine Symptoms commonly include:

- skin problems (especially around the head and pressure points),
- enlarged lymph nodes
- enlarged spleen,
- eye problems,
- weight loss,
- lethargy,
- reduced appetite,
- nose bleeds,
- and vomiting and diarrhoea.

There are many common blood test abnormalities seen in Leishmania infection – although none of these are specific for the infection.

*Canine leishmaniasis* is expanding to the Northern Hemisphere, where it was barely known. This is due to climate change and the importation of dogs.

Dog collars impregnated with deltamethrin are used to control the infection of reservoir dogs.

Several vaccines have been developed in the last decade, but their efficacy is limited and not guaranteed to be 100% effective, this includes the innoculation available in Spain. Veterinary researchers are still waiting for the ideal drug that can eliminate the parasite from target organs and limit transmission.

#### How it spreads:

- When female sandflies bite and feed on blood of an infected host, they can acquire the Leishmania parasites. These parasites can then be transmitted to another host by the same sandfly species during a subsequent blood meal.
- Additionally, Leishmania can be passed from a mother to her child,
  - from a female dog to her puppy,
    - or through the sharing of syringes.

Seroprevalence:

#### LEISHMANIASIS | Barkinside Sanctuary

"...the frequency of individuals in a population who have a particular element and especially antibodies to an infectious agent in their blood serum..."

In southern European countries, Canine leishmaniasis, (now referred to as "CanL"), seroprevalence reaches high levels.

#### Prevelance in Spain:

- CanL is *widespread in Spain*.
  - It can be considered endemic in almost the entire territory.
- In the southeast section of the country, the seroprevalence was calculated at 23.7%.
- Hot spots have been found in the Axarquia region (Malaga).
- Figures are *lower in central Spain (1–5%) and in the North*, whereas in the *Pyrenees and northeastern areas, 19.5% prevalence* was found, mainly among the hunting dog population.
- Low prevalence numbers (0–2.5%) were found in the Canary Islands, although imported cases were not ruled out.

This disease is mostly unknown by veterinarians outside the endemic areas.

#### Leishmaniosis cannot be transmitted from dog to humans

**In Humans** the parasite manifests in various forms, causing *visceral* and *cutaneous* leishmaniasis in populations in the Mediterranean Basin, North Africa, South America, and West Asia.

- Cutaneous leishmaniasis: (caused by Leishmania tropica), causes skin sores which are often self-healing within a few months, but which may leave ugly scars; it occurs worldwide, including the Mediterranean coast.
- *Visceral leishmaniasis:* (caused by *Leishmania infantum*), causes systemic disease, presenting with fever, malaise, weight loss and anaemia, swelling of the spleen, liver and lymph nodes; most of the cases reported worldwide occur in Bangladesh, Brazil, India, Nepal and Sudan.

#### **Risk for people**

A noteworthy number of leishmaniasis cases in the European Union (EU) come from outside Europe, often due to travel to tropical countries where leishmaniasis is more prevalent.

### Vaccination and treatment:

Currently, there is no available vaccination for this parasite. However, various treatments exist, although over time, the parasite has developed resistance to some of these medications.

#### Protective measures include:

- using methods like mosquito nets treated with insect repellent,
- applying insect repellent directly to your skin,
- managing the presence of insects around your home.

#### **RESOURCES:**

- <u>CLICK HERE</u> to download a copy of this page.
- <u>CLICK HERE</u> to download a copy of *"Canine Leishmaniasis: Update on Epidemiology, Diagnosis, Treatment, and Prevention."* Department of Parasitology, University of Granada, Spain. Or click <u>here</u> to read online.
- <u>CLICK HERE</u> to download a *Factsheet provided by the European Centre for Disease Prevention and Control* (An agency of the European Union). Or click <u>here</u> to read online.
- <u>CLICK HERE</u> to download a copy of *"Surveillance, prevention and control of leishmaniases in the European Union and its neighbouring countries"* provided by the European Centre for Disease Prevention and Control. Or click <u>here</u> to read it online.

