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What is leishmaniasis?

Leishmaniasis is a disease caused by a protozoan parasite of the genus *Leishmania spp.*, which is introduced into the animal through the **bite of an infected sand fly**.

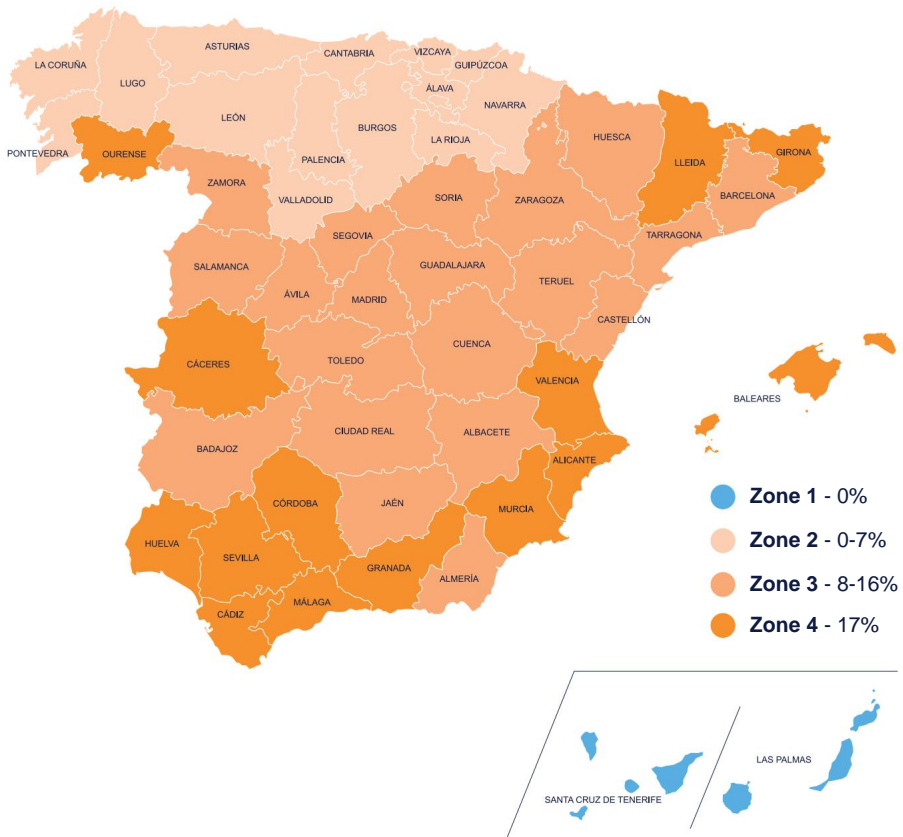
Leishmaniasis is a **zoonosis**, that is, it can affect both animals and people.

Canine leishmaniasis is a very important disease due to its impact on veterinary medicine and also on human health; it is endemic in **98 countries** around the world. In southern Europe, cases of human leishmaniasis continue to be diagnosed annually.



An illness endemic in Spain

Spain is one of the areas in which leishmaniasis is considered an **endemic disease**, that is, there is a constant presence of the disease in the country. These are the Spanish provinces with the highest seroprevalence of *Leishmania* in dogs:

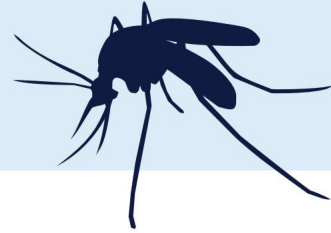


Source: Gálvez, R., Montoya, A., Cruz, I., Fernández, C., Martín, O., Checa, R., ... & Miró, G. (2020). Latest trends in *Leishmania infantum* infection in dogs in Spain, Part I: mapped seroprevalence and sand fly distributions. *Parasites & vectors*, 13(1), 1-12.

How is it transmitted?

Mosquito or fly?

Leishmaniasis is commonly known as the “**mosquito disease**” but in reality the vector transmitting the disease is a sand fly that belongs to the order of flies (Diptera).



Curiosities about sandflies

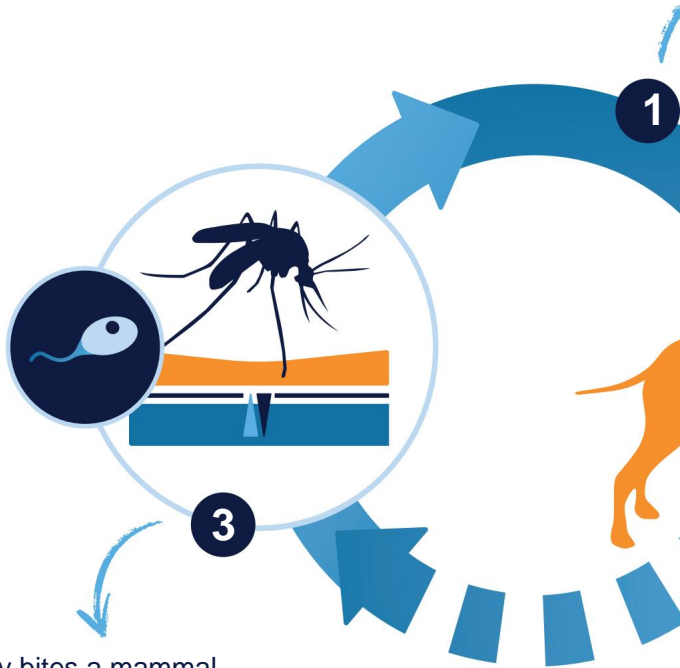
- Only **females** transmit the disease since they need to ingest blood to mature the eggs.
- The weather conditions of **rain** and wind are not favorable for them.
- The ideal places to **lay eggs** should offer moderate temperatures, low lighting, high relative humidity and high content of organic matter for their food.
- Its **color** ranges from white to black.
- It measures about **2mm - 3mm long**.
- It has long, delicate legs and the wings form a 45-degree angle.
- It is **covered with hair** all over its body, including its wings and legs.
- Its **flight** is silent.
- Its **activity cycle** begins at dusk and ends at dawn.
- Its half-life can range between **29 and 31 days** depending on the species.
- They fly lower than mosquitoes, almost close to the ground.
- Their **flight speed** is 1m/sec and they travel distances of 300m.
- They look for **areas with little hair to bite** (head, nasal bridge, pinna. Inguinal and axillary areas).

Attention!

Due to climate change, the presence of the vector is more geographically extensive and its activity is longer throughout the year.

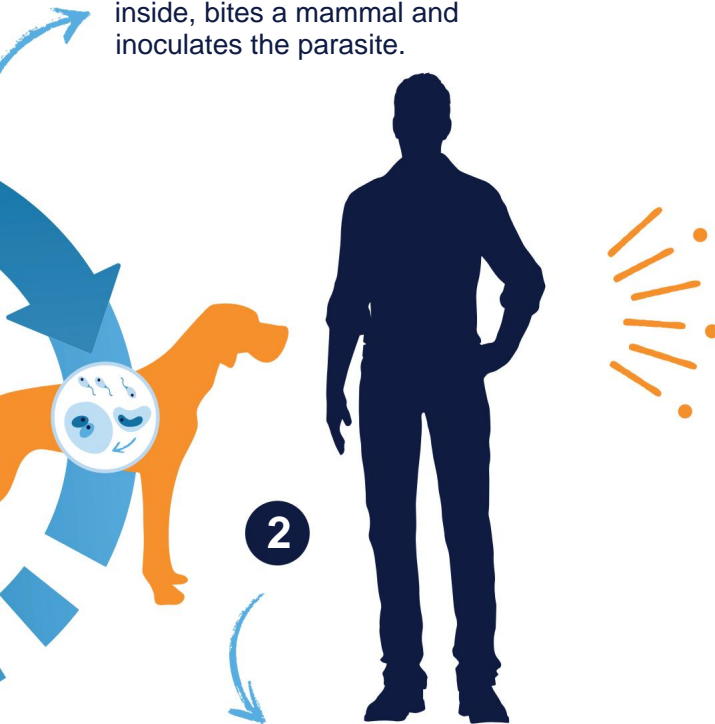
Parasite

The parasite that causes **leishmaniasis** is *Leishmania infantum*. The **biological cycle** of this parasite is divided into two parts; one occurs within the sand fly (promastigote) and the other inside the cells of a mammal (amastigote). **The mammal that acts as the main reservoir is the dog.**



A sand fly bites a mammal carrying *Leishmania infantum*, and serves as a **vector for the parasite** to infect another mammal.

The **sandfly**, with *Leishmania infantum* inside, bites a mammal and inoculates the parasite.



The parasite multiplies inside the host. If the **immune response is not adequate**, it affects different parts of the body and causes clinical signs.



How does it develop?

The moment the dog's body detects the arrival of the parasite, it tries to eradicate it through a **specific immune response**. Based on this answer we can find:

Animals with an **EFFICIENT** immune system



Being dogs that can test positive in the diagnosis without presenting symptoms of the disease.

Animals with an **INEFFICIENT** immune system

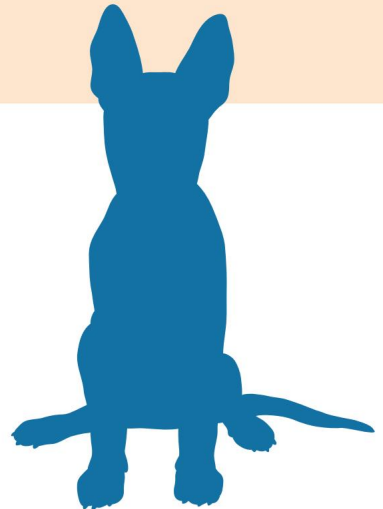


Where their response fails and widespread spread of the parasite occurs and physical symptoms may begin to develop.

Not all dogs carrying *Leishmania* end up developing the disease itself.

This parasitic disease can affect **all breeds of dogs**, and appears equally in males and females, both in young and elderly animals.

There are breeds of dogs predisposed to suffering from the disease such as Boxers, Cocker Spaniels, Rottweilers and German Shepherds. However, it has been seen that the Podenco Ibicenco breed is resistant to the disease and hardly gets sick from leishmaniasis.



The presence of other diseases or treatments can influence the development of the disease

In **Spain** every year...

385,000

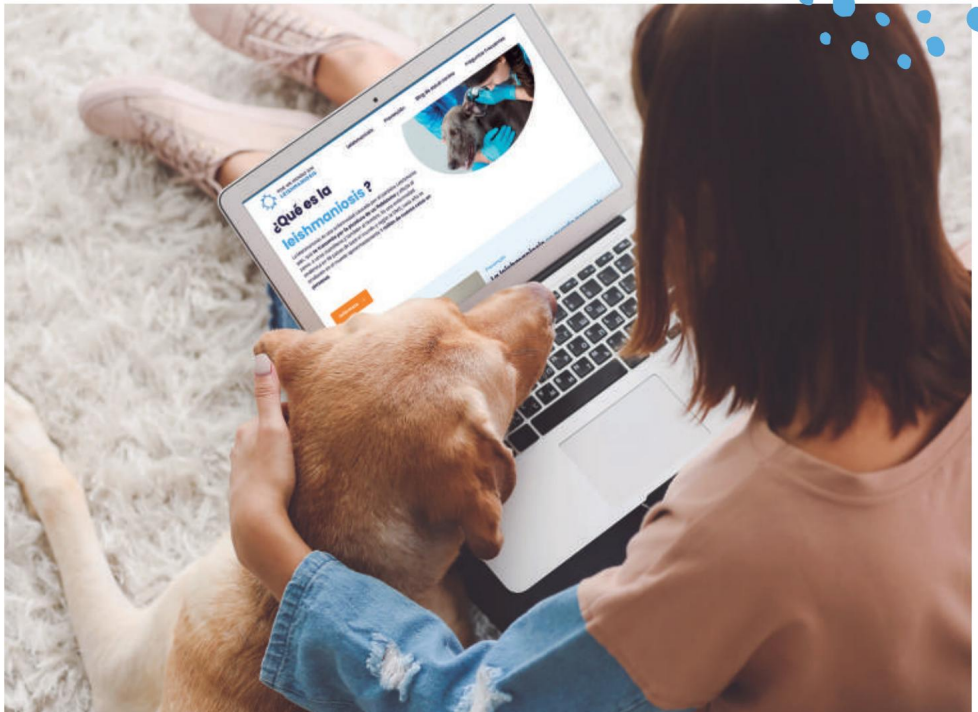


Dogs get infected of leishmaniasis.

700



New cases detected In person.



Source: Im Veterinaria (2020). The incidence of leishmaniasis increases.
Consulted at: https://www.imveterinaria.es/uploads/2020/10/aumenta_incidencia_leishmaniasis_3463_20201022014418.pdf

Symptoms

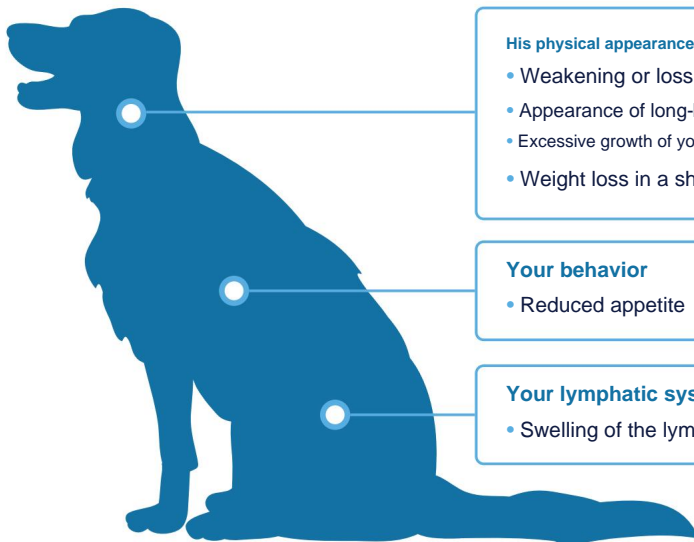
Leishmaniasis can occur without symptoms or with multiple clinical presentations, even causing the death of the animal.

Most of the time what we will see in the animal are alterations in the skin.



The signs of *Leishmania* are usually very nonspecific, so it is vitally important to know the **main signs** that pets affected by the disease caused by the *Leishmania parasite* may present.

The signs that should alert you can be noticed in:



His physical appearance

- Weakening or loss of your pet's hair
- Appearance of long-lasting wounds on your skin
- Excessive growth of your nails
- Weight loss in a short time

Your behavior

- Reduced appetite

Your lymphatic system (defenses)

- Swelling of the lymph nodes.

If you notice any of these symptoms in your pet, **quickly contact a professional**. The veterinarian will carry out a diagnosis to determine if your pet suffers from leishmaniasis or any other pathology and will be able to recommend the best treatment.



Read our
blog article to
learn more



Diagnosis

The high prevalence of leishmaniasis in Spain makes it vitally important to carry out an early diagnosis in order to **determine if the dog is infected and may suffer from the disease.**



If you have **identified** that your dog has one or more of the **symptoms** mentioned in the previous point, it is necessary **to obtain a diagnosis as soon as possible.** to be able to apply treatment if necessary.

To **verify if your pet is infected with leishmaniasis**, in addition to a clinical examination and a blood test, the veterinarian may propose performing various tests:



Clinical examination



**Rapid blood test
in clinic**



**IFI or ELISA of *Leishmania spp.* at
the laboratory**



**Bone marrow or lymph node
cytology and/or tissue biopsy**



**Complete blood
and urine analysis**



Read our
blog article to
learn more



Prevention



There are different **preventive measures** that can be carried out together to protect your dog from leishmaniasis. Here are some:



Apply external antiparasitics: Both pipettes and collars can be applied to prevent mosquito bites.



Avoid exposure during dawn and dusk

Prevent the dog from sleeping outdoors



Apply environmental measures against mosquitoes:

Mosquito nets can be placed on all the windows of the house. Inside homes, it is advisable to use anti-mosquito products to protect against bites.



Vaccination: The leishmaniasis vaccine acts as

protection by preparing the animal's defenses, so that in the event that an infected "mosquito" comes into contact with the animal, vaccination reduces the risk of progression of the disease, helping its body to fight it and reducing the probability of developing clinical signs .



Puppy

Strengthen and protect your immune system

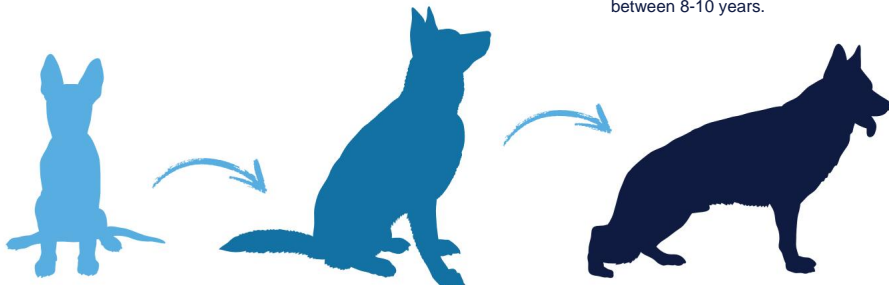
Adult

Keep a adequate immunization

Senior

Strengthen the immune system weakened. Leishmaniasis

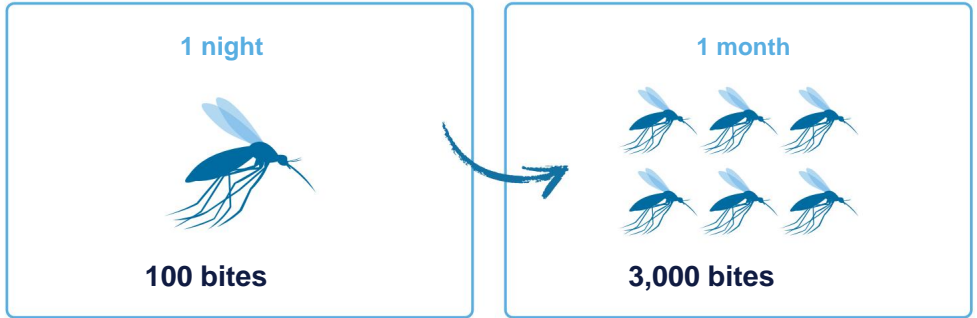
It presents a second peak between 8-10 years.



The widespread **use of preventive measures** in the population allows the **reduction of the prevalence of leishmaniasis**.



A dog that **sleeps outside** can receive more than **100 bites** in one night, this is **3,000 bites** in a month.



Do you want to find out if you are applying good preventive measures?

Take this test and find out!



What should I expect if I have a dog with leishmaniasis?

If your dog has been diagnosed with leishmaniasis, the veterinarian and **prevention will be your best allies.**

You will need to monitor **your dog's symptoms** and possible treatments in order to control the disease.

4 essential tips

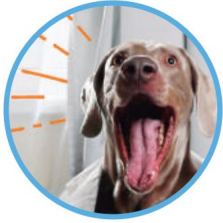
- **Periodic visits** to the veterinarian
- Continue to maintain **preventive measures**
- Follow the **treatment according to the veterinarian's instructions**
- **Observe any change** or alteration in your physical state or their behavior.



Do you want to stay up to date on the latest in canine health and learn about leishmaniasis?

Follow us on our Instagram and Join our canine community:

- Contrasted and quality information
- Testimonials
- Tips and prevention advice
- Interviews with experts

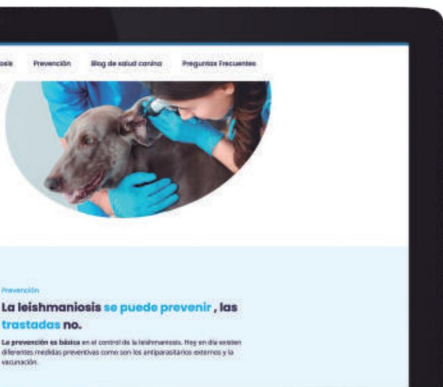


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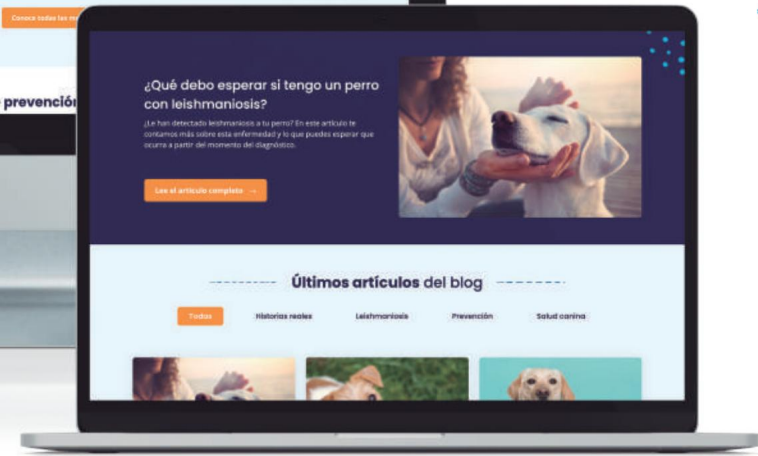


Visit our [website](#) and learn in depth about this disease.

- Prevention Tips • Dog Health Blog • Frequently Asked Questions
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