

<p>Intestinal Disease</p> <ul style="list-style-type: none"> • acquired by ingesting undercooked meat (especially beef or pork) • causes a transient mild to severe diarrhea • sporocysts in feces 	<p>Muscle Disease</p> <ul style="list-style-type: none"> • acquired by ingesting sporocysts • formation of sarcocysts • can cause muscle tenderness or episodic inflammation
<p>Sporocyst Structure</p> <ul style="list-style-type: none"> • 13 x 10 μm • 4 sporozoites • occasional oocyst 	<p>Sarcocyst Structure</p> <ul style="list-style-type: none"> • several hundred μm in size • septated (ie, sections) • sometimes thick striated wall

BABESIA

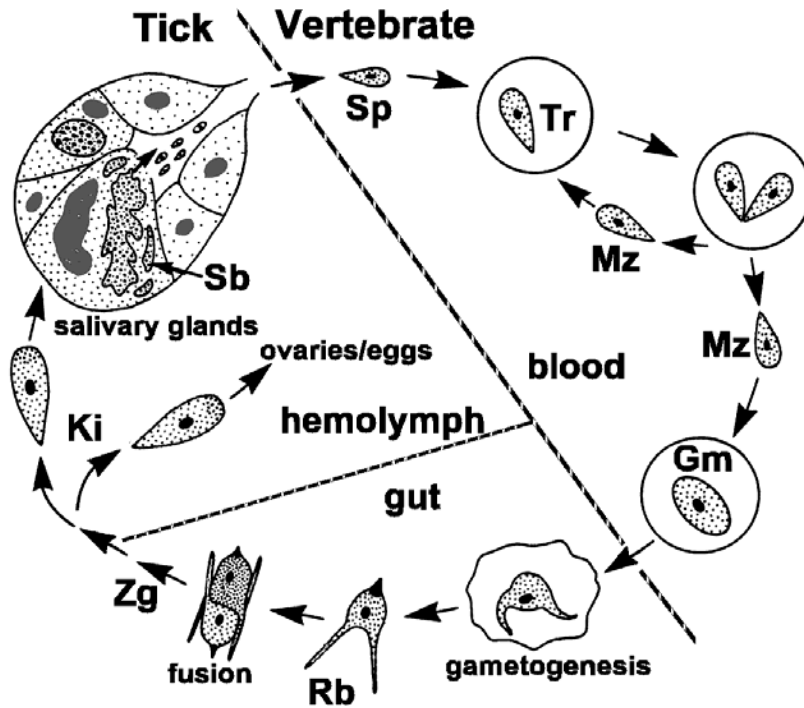
Babesia

- common tick-borne parasite of domestic and wild animals
 - vector = *Ixodes*
- rare zoonotic human infection
- primarily two species
 - *B. microti* in U.S. (especially NE coast, Nantucket fever)
 - *B. divergens* (Europe)
- clinical disease: asymptomatic to fatal
 - more severe in splenectomized persons or elderly
- symptoms
 - gradual onset of fever, chills, sweating, myalgia, fatigue (malaria-like, no periodicity)
 - symptoms can persist for several weeks (parasitemia for months)
 - moderate to severe hemolytic anemia

Human Babesiosis

Species	Location	Reservoir Hosts	Vector	Cases	Mortality
<i>B. microti</i>	U. S.	field mice, voles*	<i>I. dammini</i>	~300	5%
<i>B. divergens</i>	Europe	cattle, ruminants	<i>I. ricinus</i>	~30	50%

**Peromyscus leucopus* (white-footed mouse) and *Microtus pennsylvannicus* respectively.



Babesiosis

Diagnosis

- parasite in thin or thick blood smear
- distinguishing from *P. falciparum*:
 - no travel history
 - serology
 - lack of response to anti-malarials

Treatment

- no generally effective drugs
- clindamycin + quinine
- pentamidine has also been used
- blood transfusions for severe anemia

Control

- avoid tick bites