



# TICK-BORNE DISEASES AND TICK BITE PREVENTION

## WHAT ARE TICKS?

Ticks are small, spider-like creatures that feed by attaching to animals and sucking blood.



TICKS ARE SMALL!



Western black-legged tick  
*Ixodes pacificus*



Pacific coast tick  
*Dermacentor occidentalis*



American dog tick  
*Dermacentor variabilis*

## COMMON HUMAN-BITING TICKS IN CALIFORNIA



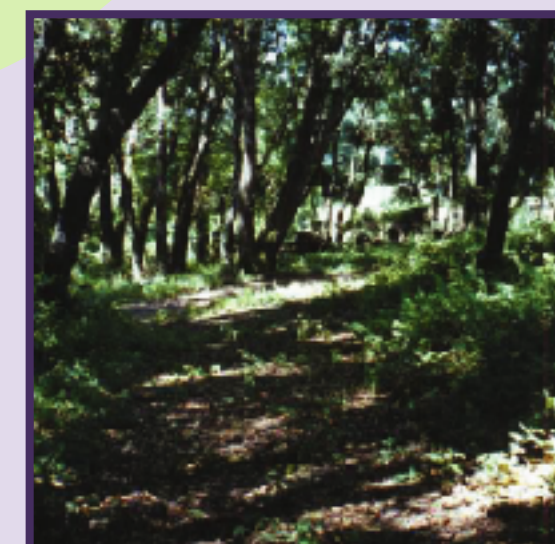
Magnified mouth parts of an *Ixodes* tick

## WHERE ARE TICKS FOUND IN CALIFORNIA?

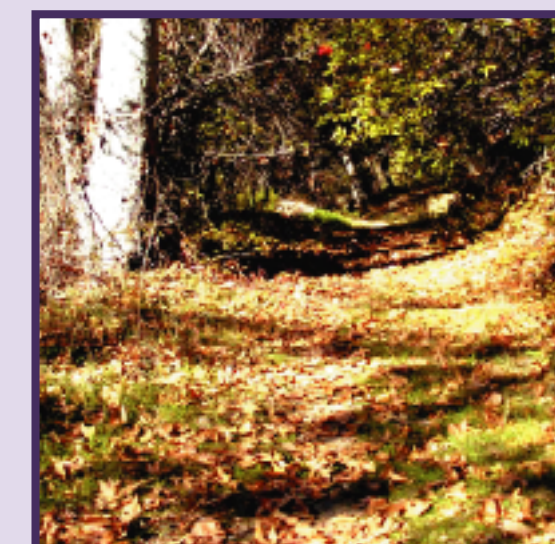
Ticks are found in natural areas that have grasses, shrubs, or leaf litter under trees.



Uphill side of trails



Mixed hardwood forests



Leaf litter



On logs and fallen branches

## WHY ARE TICKS IMPORTANT?

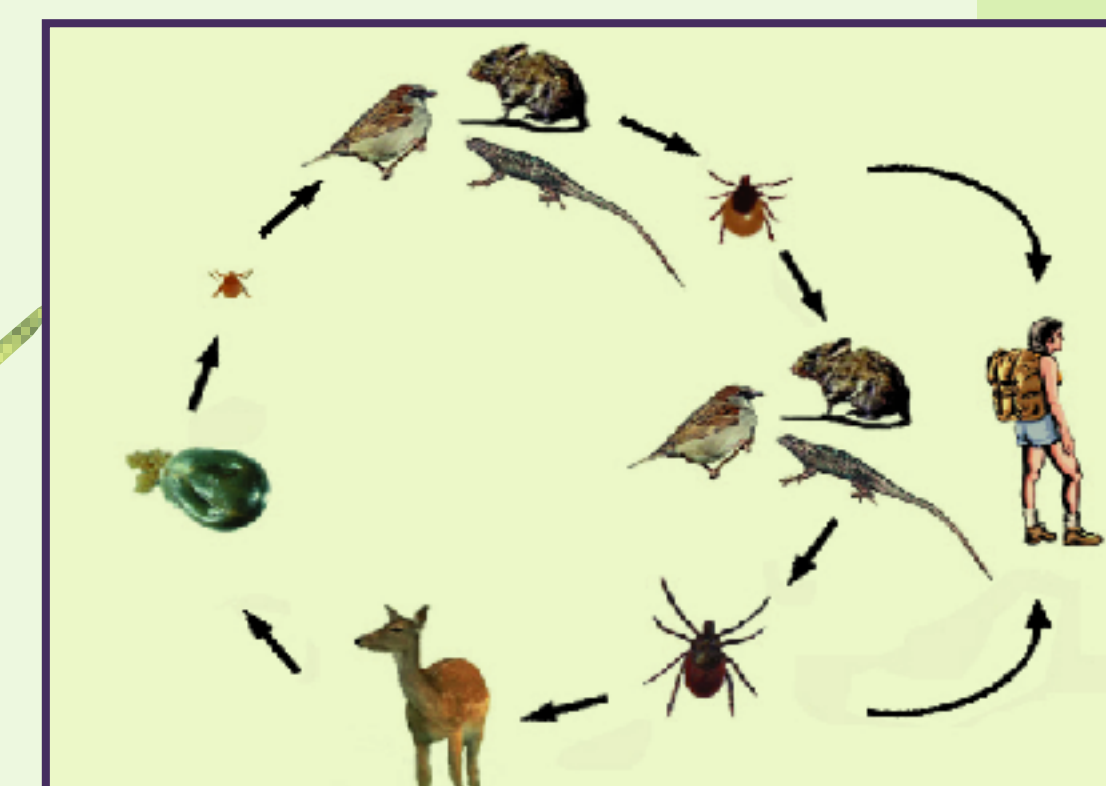
SOME TICKS CAN TRANSMIT DISEASE

- Lyme disease
- Ehrlichiosis
- Anaplasmosis
- Babesiosis
- Rocky Mountain spotted fever
- Tularemia
- Tick paralysis

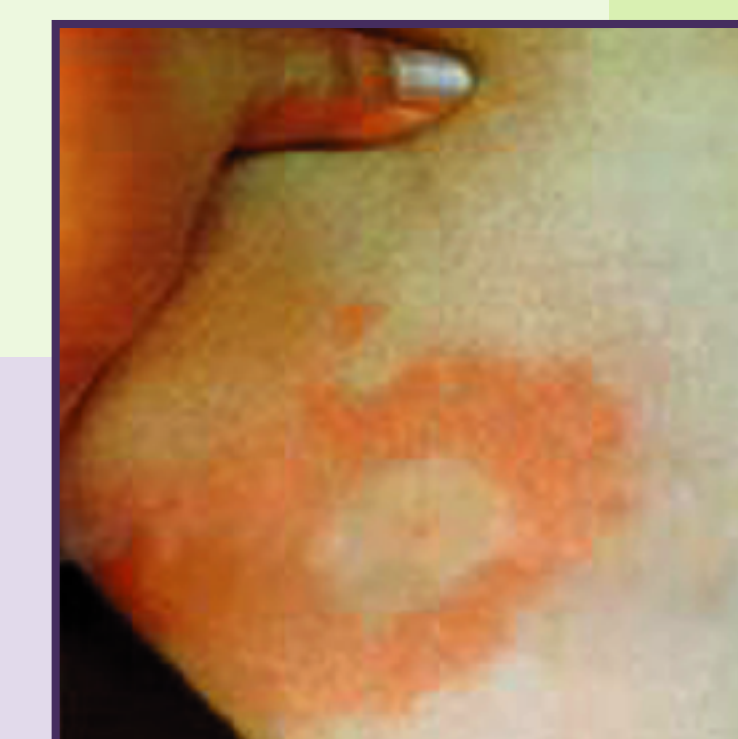


## LYME DISEASE IS THE MOST COMMON TICK-BORNE DISEASE IN CALIFORNIA

*Ixodes pacificus* ticks get the Lyme disease bacteria from infected rodents. Humans get Lyme disease from the bite of an infected *Ixodes pacificus* tick.



## SIGNS AND SYMPTOMS OF LYME DISEASE



### Erythema migrans

- Expanding rash 1-30 days following tick bite
  - Rarely itching or painful
- May be confused with allergic reaction to tick bite**
- Allergic reactions occur 1-24 hours after bite and do not spread

### Flu-like symptoms

- Fever, chills, fatigue
- Muscle aches, joint pain
- Headache

### Nervous system problems

- Weakness of some muscles in the face
- Numbness, tingling, or pain in the arms and legs

### Heart problems

- Disturbances in the heart rhythm

### Muscle and skeletal symptoms

- Arthritis in one or few joints

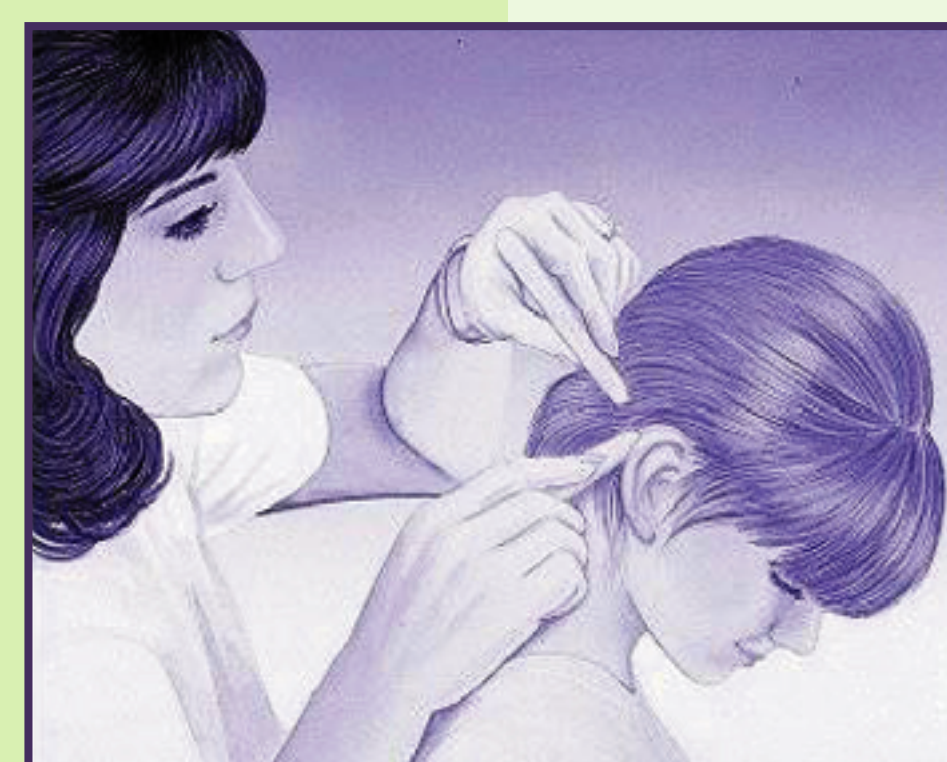
## PERSONAL PROTECTIVE MEASURES

- Avoid tick-infested areas
- Wear light-colored clothing
- Wear a hat, long sleeved shirt, and long pants
- Tuck shirt into pants, pants into boots or socks
- Use effective tick repellents

- Check yourself, children (especially at hair line), and pets regularly while in tick habitat
- Conduct daily full body check (hair line, armpit, back of knees, groin) at home, up to 3 days after returning from tick habitat
- Remove attached ticks promptly and properly



## HOW DO I PROTECT MYSELF AGAINST TICK BITES?



## TICK REPELLENTS



- Apply DEET repellent (Cutter®, Off®, Repel®, Skintastic®, etc...) to skin that is not covered by clothing
- Treat clothing with permethrin repellent (Permethrin®, Duranon®, etc...) as directed on label.

## WHAT DO I DO IF I'VE BEEN BITTEN BY A TICK?

- Promptly remove tick
- If you develop any symptoms 1-30 days after bite, consult with your physician
- Let your physician know that you were bitten by a tick

Prevention of tick bites is key to prevention of disease

## TICK REMOVAL TECHNIQUE

- Use tweezers to grab the tick close to your skin
- Pull the tick firmly, straight out, away from the skin (do not jerk, twist, or burn the tick)
- Wash your hands and the bite site with soap and water after the tick is removed and apply an antiseptic to the bite site



The sooner a tick is removed, the less likely it is for a person to become infected.