

ACAROLOGY



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ARACHNIDS



General characteristics, Classification,
Morphology , lifecycle , Pathogenesis ,
Prevention & control

Classification

Class- **ARACHNIDA**

Order-**ACARINA**

Suborder- **Ixodoidea** (Hard and Soft ticks)

Sarcoptiformes (Mites)

Mesostigmata (Gamasid mites)

Trombidiformes (Fruit pests)

Classification - contd

Suborder- **Ixodoidea**

(Hard and Soft ticks)



Family- **Ixodidae**

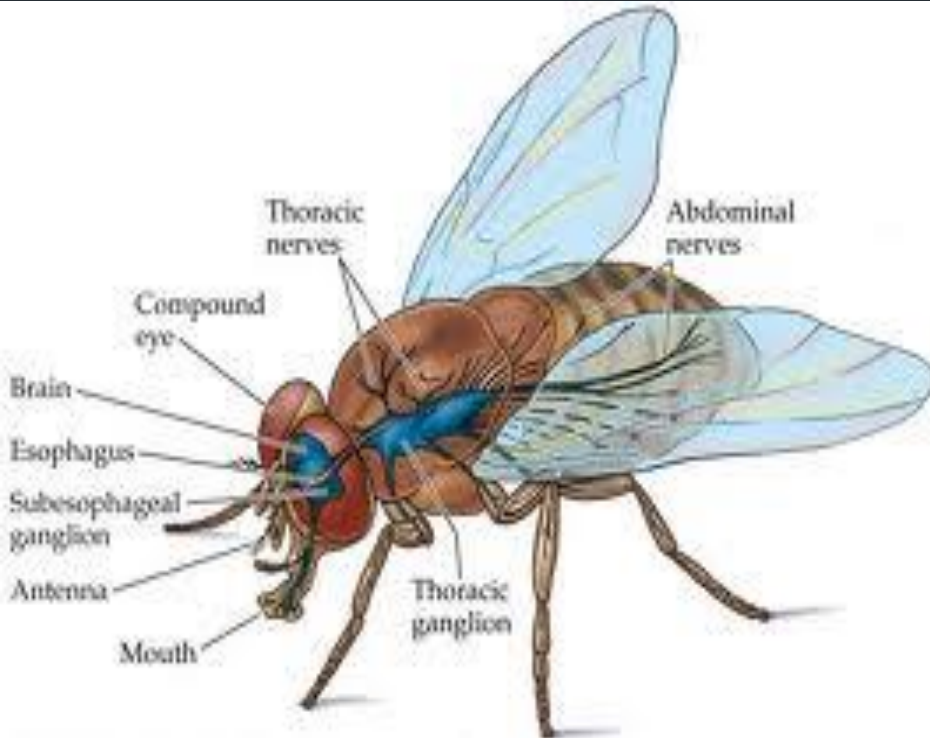
Argasidae

INSECTA

1. Three (3) pairs of legs .
2. Body is divided into 3 parts Head, Thorax, and Abdomen .
3. Single pair of sensory antennae .
4. Eyes are absent or reduced but well developed in blood sucking .

ARACHNIDA

1. Four (4) pairs of legs .
2. Body is divided into 2 parts Cephalothorax & Abdomen .
3. No antennae .
4. Eyes are absent or reduced .



Morphology



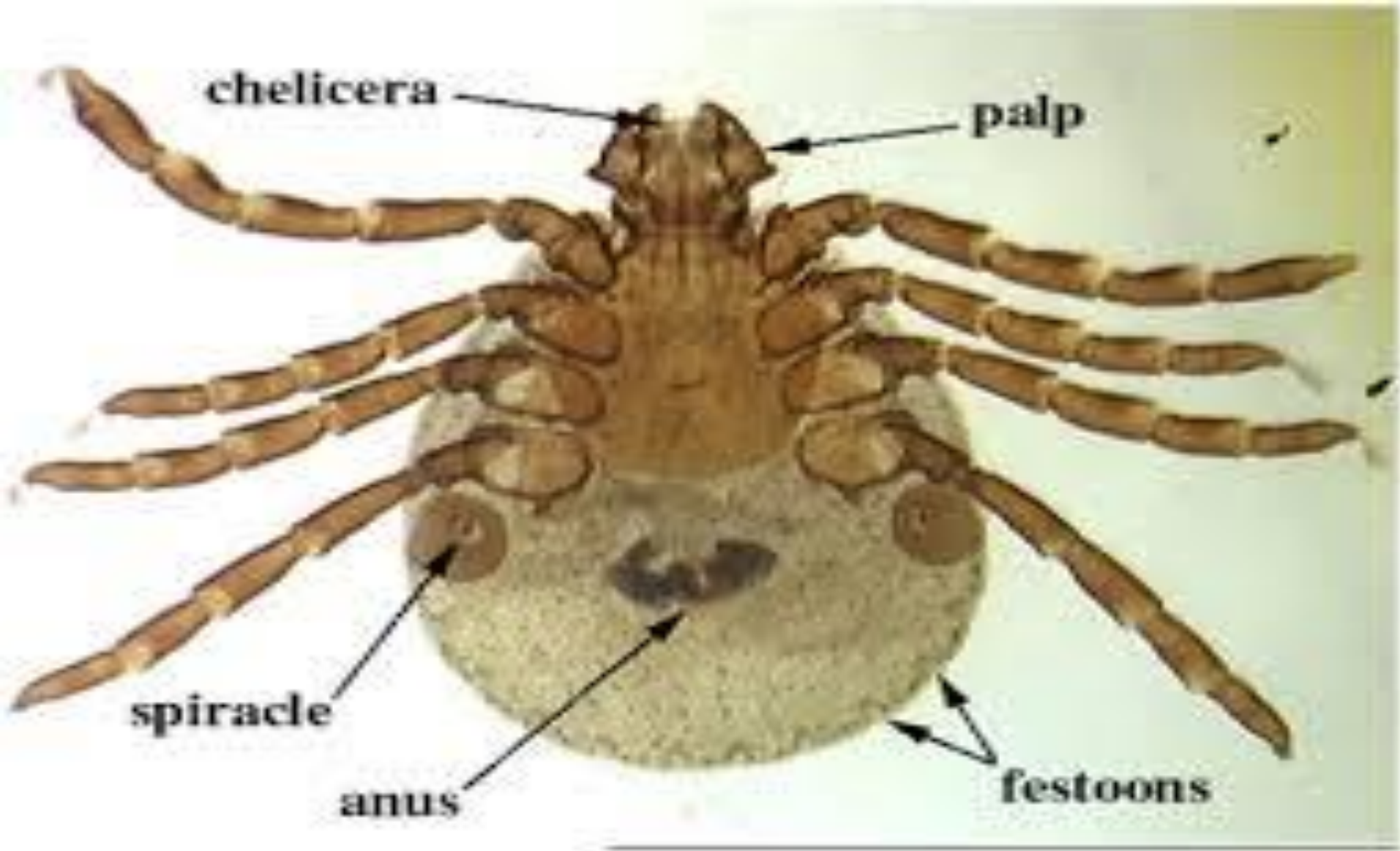
- ❑ Ticks mouths have three parts.
- ❑ First are the two chelicerae, which the tick uses to cut through the skin of its host.
- ❑ Second is the hypostome, a barbed, needle-like structure that it uses to hold itself in the host while it has a nice meal. The barbs point backward which makes it difficult to pull the tick out.



Source - Google

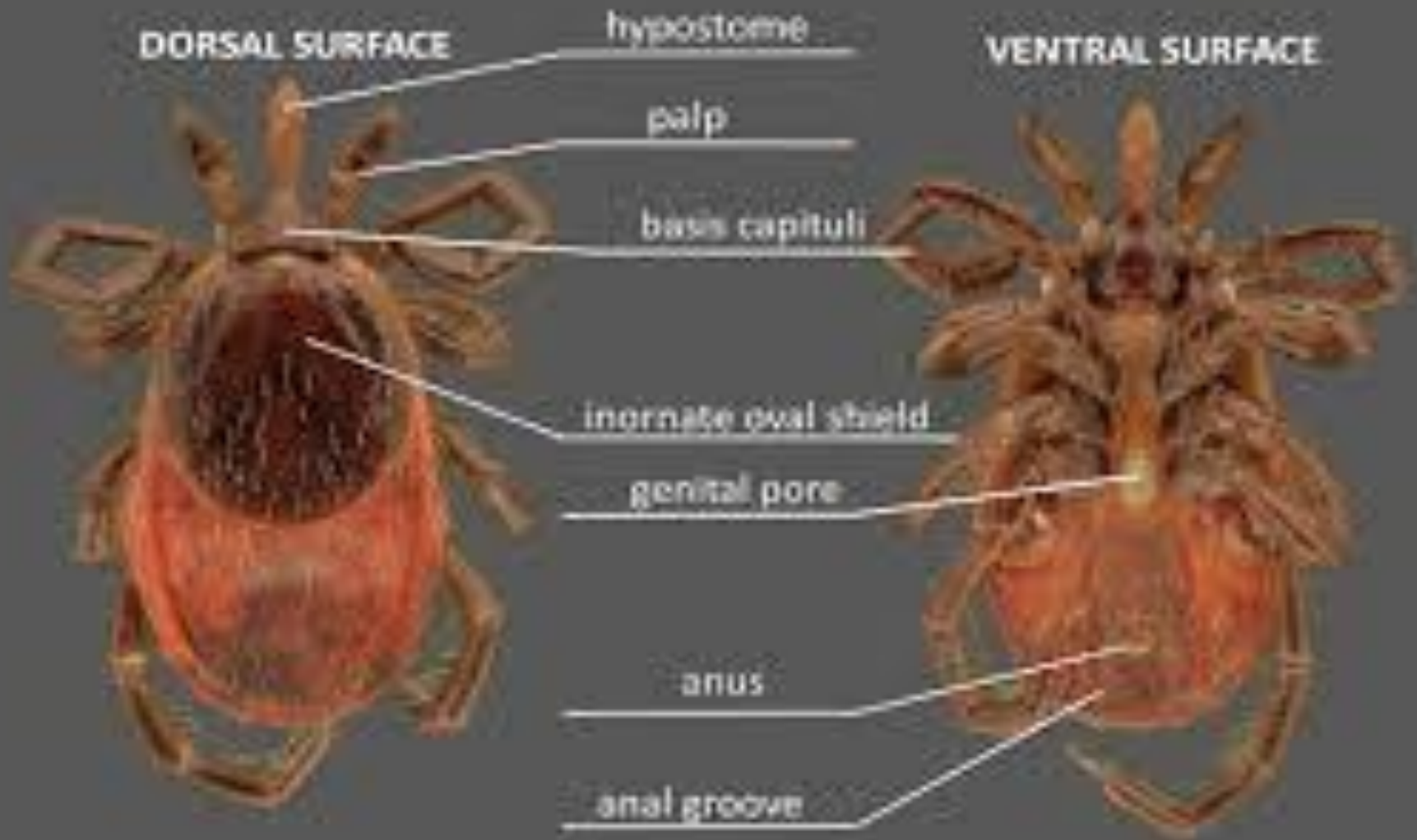
Parts of the body

DR. R.K.SHARMA



Source - Google

Parts of the body



SOURCE - GOOGLE

Dorsal and Ventral surface of tick

DR.R.K.SHARMA

Habit and habitat

- ❑ The ticks lay their eggs in sheltered spots.
- ❑ Egg laying occurs in batches.
- ❑ The whole process of development to the adult greatly influenced by the temperature.
- ❑ After having engorged, the larva moults and becomes a nymph
- ❑ The nymph after further moulting develop to adult ticks.