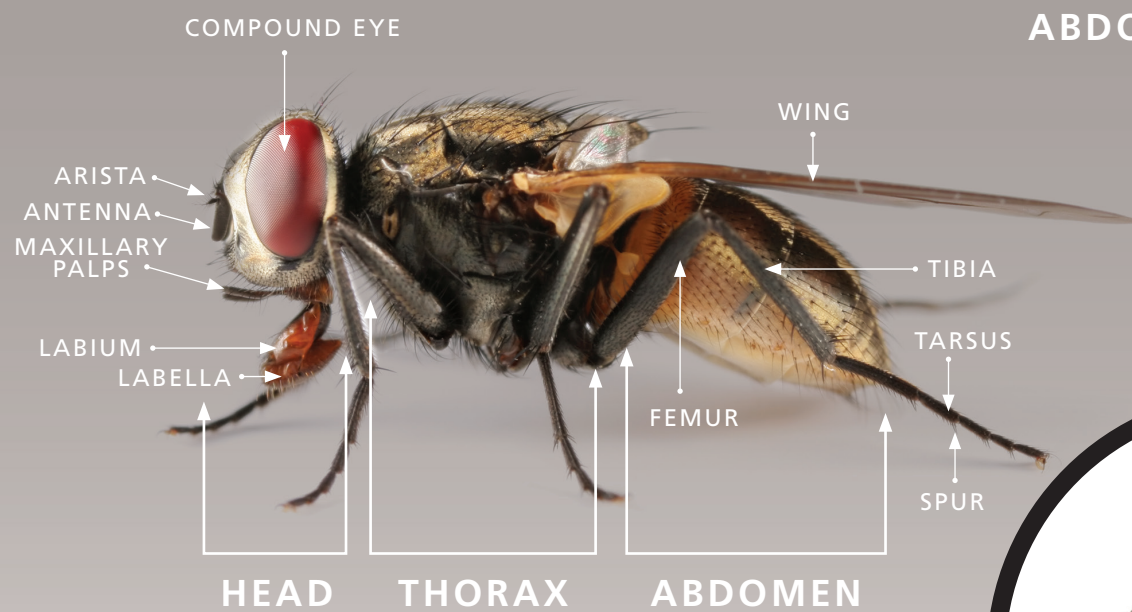
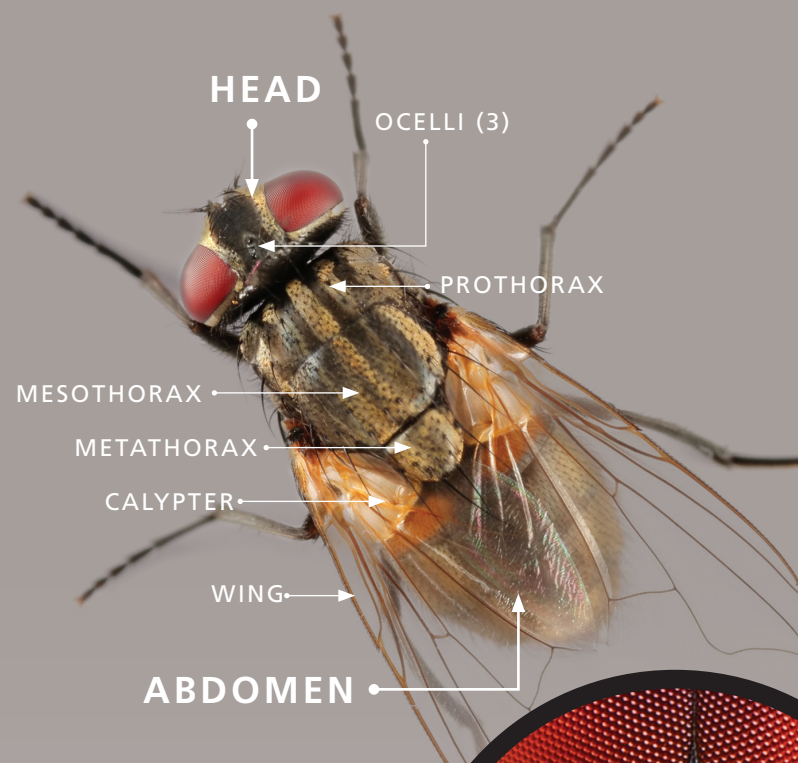


# HOUSE FLY

*Musca domestica*

ORDER: DIPTERA  
FAMILY: MUSCIDAE

The house fly, *Musca domestica*, lives in close association with people. Consequently, it is one of the most commonly encountered pests around the globe. Nuisance pests in most situations, house flies represent a serious health threat in commercial kitchens, capable of transmitting numerous communicable diseases including dysentery and food poisoning.

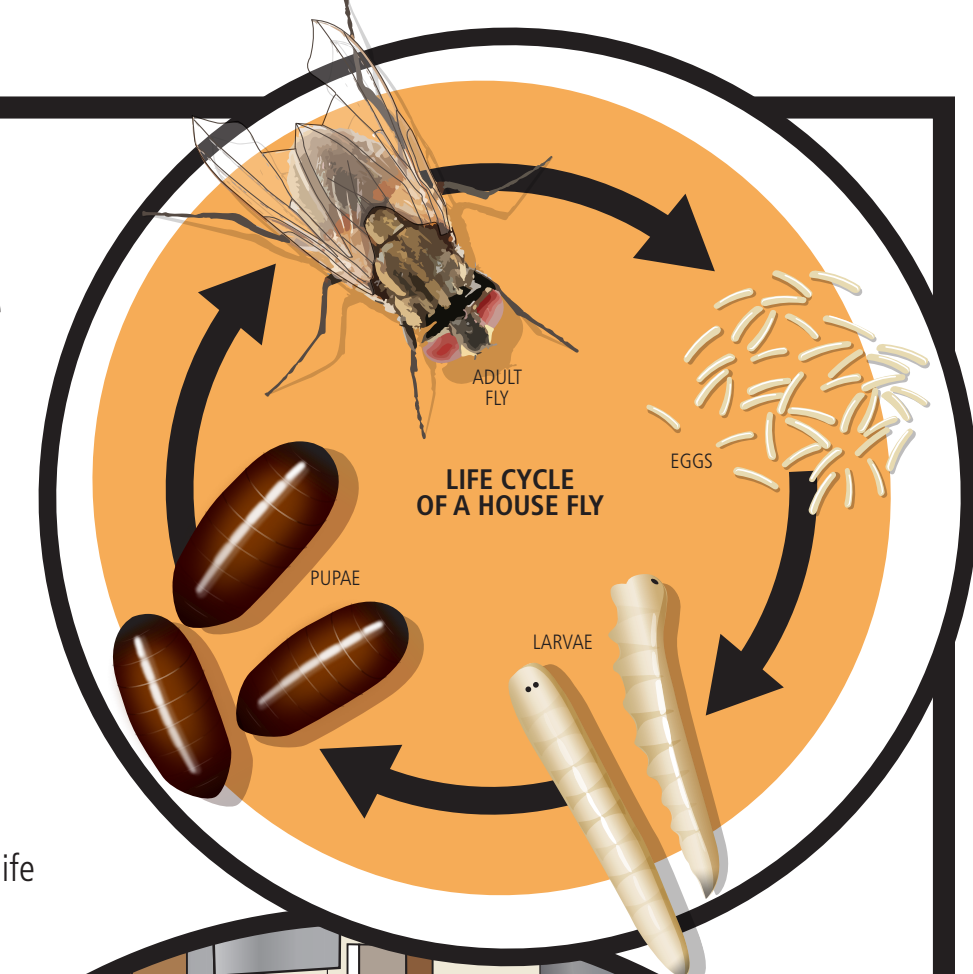


## DESCRIPTION

House flies are 1/8- to 1/4-inch long and dull gray in color with four distinctive dark stripes on the back of their thorax. They have two wings, with the fourth longitudinal wing vein featuring a sharp upward turn, a key identifying characteristic. The head is dominated by sponging mouthparts and large, red/brown compound eyes surrounded by a light gold stripe. A pair of short antennae emerge from between the eyes. Mature house fly larvae – commonly called “maggots” – are spindle-shaped and creamy white, resembling tiny white worms. The legless larvae are cylindrical in shape and tapered toward the head. Measuring 1/4- to 3/8-inch long, the head has one pair of dark mouth hooks and a posterior that features spiracles which lead to the insect’s respiratory system.

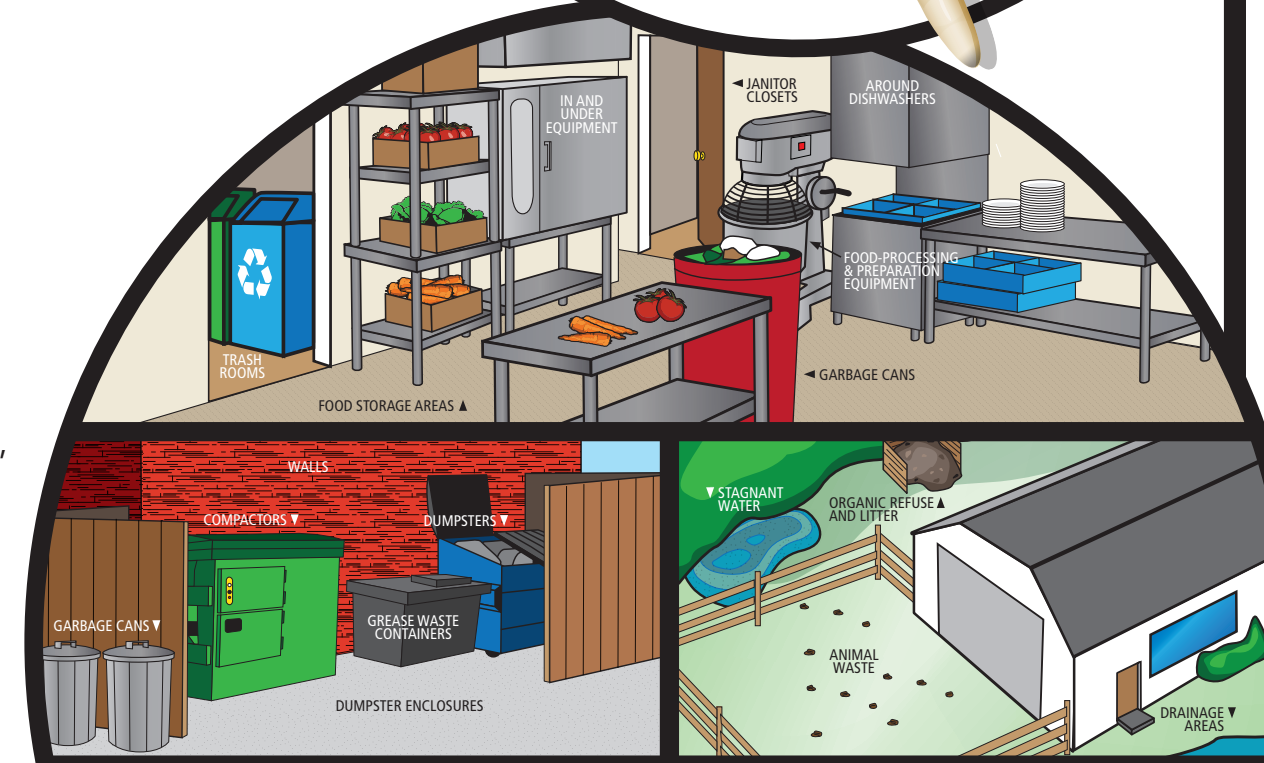
## LIFE CYCLE

- House flies undergo complete metamorphosis: egg, larvae, pupae and adult.
- Female house flies lay clusters of single eggs (75 to 150) usually in animal manure, but sometimes in moist, rotting organic matter (e.g. garbage, grass clippings).
- A female may lay more than 500 eggs in her lifetime. The eggs hatch within a day, and the young larvae burrow into the breeding medium and complete development in three days to several weeks, depending on environmental conditions.
- Larvae then migrate to drier portions of the breeding medium to pupate for three days to four weeks before emerging as adults.
- Under optimum conditions, house flies can complete their entire life cycle in less than seven days.



## SPONGING MOUTHPARTS

House flies are adept at spreading disease, in part because of the evolutionary brilliance of their mouthparts. The common house fly has what entomologists describe as “sponging” mouthparts. These insects secrete saliva with enzymes onto their food to partially digest it before sponging it up. The house fly’s sponging mouthparts include an elbowed labium featuring a large sponge-like organ, known as the labella, at the tip. As house flies land on various surfaces, regurgitating saliva and digestive enzymes and sponging up the liquid, they become efficient transmitters of disease, particularly if manure is one of the surfaces they land on during their travels.



## COMMON RESTING AND BREEDING SITES

### INDOORS:

- GARBAGE CANS
- FOOD STORAGE AREAS
- FOOD-PROCESSING AND PREPARATION EQUIPMENT
- AROUND DISHWASHERS
- IN AND UNDER EQUIPMENT
- TRASH ROOMS
- JANITOR CLOSETS

### OUTDOORS:

- DUMPSTERS AND DUMPSTER ENCLOSURES
- COMPACTORS
- GARBAGE CANS
- GREASE WASTE CONTAINERS
- WALLS
- STAGNANT WATER
- DRAINAGE AREAS
- ORGANIC REFUSE AND LITTER
- ANIMAL WASTE

## CONTROL STRATEGIES

Once it is determined that a house fly problem exists in a commercial kitchen, it’s time to develop a control program designed to deliver both short- and long-term results. Successful house fly control requires a multi-pronged approach including:

- UNDERSTAND HOUSE FLY HABITS AND LIFE CYCLE
- PRE-TREATMENT (COMMUNICATION)
- INSPECTION
- MECHANICAL CONTROL RECOMMENDATIONS
- INTERIOR INSECTICIDE APPLICATIONS
- EXTERIOR INSECTICIDE APPLICATIONS
- POST-TREATMENT (EVALUATION)