

Can I just tell you, friends, how much I hate a fly? Hate. HATE. Seriously and with all the conviction of my body, I simply HATE a fly. Some people believe that I overreact, but let me just point out that spiders, roaches and earwigs do nothing more than entice me to swat them with my shoe. If a fly weighed as much as the African Elephant, which is the largest living land animal, then maybe folks would understand what an extremely nasty little bugger the fly is.

There are more than 120,000 species of flies worldwide. The common house fly, also known as *Musca domestica*, is one of the ickiest little critters on this green Earth. These pests get their name from being the most common fly found around homes. As we learn more about the fly, hold in your mind a picture of a fly the size of an African elephant.

Adult houseflies are grey and black with four black stripes on the back. They are about 1/4 inch long. A fly has two eyes, called compound eyes, on its head. Each eye has about 4000 facets. Ever wondered why it can be so hard to swat a fly? Flies have the fastest visual system known of any organism. All those facets give the fly 360 degree vision. They will see the swatter coming at them and make instantaneous changes in direction that allows them to escape.

Flies do not have teeth or a stinger. In fact, the mouth parts are comprised a proboscis, (a long narrow tongue similar to a straw) and two lobes, called pseudotracheae. Imagine an elephant's trunk with two sponges on the end. A fly can only eat wet or decaying matter (liquids). A fly has a great way of turning a solid into a liquid - it spits or vomits on anything it lands to see if it tastes good. Think about that the next time a fly lands on your food! Flies are particularly attracted to pet waste because the odor is strong and it is easy for them to find.

The saliva contains a mixture of enzymes, since the fly can be seen feeding on a great variety of substances though it may have a preference for sweet and soluble carbohydrates. House flies taste with their feet, which are 10 million times more sensitive to sugar than the human tongue!

Houseflies spread disease. They settle and feed on decaying organic matter, rotten fruit, dog poop, your hamburger left unattended, all of which contains many bacteria. Harmful bacteria are deposited on any surface they land on. The bacteria can adhere to hairs on the fly's legs or body; they may be in the pseudotracheae, to be flushed out on to food with the next round of vomiting or spitting. They may be deposited feces of the fly. Experiments in which flies have been allowed to walk over culture media in sterile dishes have resulted in the growth of over **100!** bacterial and fungal colonies.

Many of these bacteria are harmless to humans but others may cause serious disease. The greatest danger arises when flies are allowed to alight and feed on the feces of a person suffering from intestinal disease such as typhoid, cholera or polio. Germs or spores of these diseases may thus be carried by the flies to

human food. When this is eaten the bacteria can multiply inside the body and so infect the consumer with the disease. Flies are thought to be responsible for the spread of such diseases as those already mentioned above, also diarrhea, anthrax, eye inflammation and possibly tuberculosis.

House flies tend to stay within 1-2 miles of where they were born but will travel up to 20 miles to find food. They breed in garbage cans, compost heaps and pet areas. Female houseflies lay eggs in batches of 50-100, and as many as 500 eggs may be laid in a lifetime. The eggs are placed a few millimeters below the surface of the breeding material (dead animal or vegetable material) so the eggs do not dry out. Eggs can hatch very quickly, about 12 hours, after being laid.

Baby flies are called larvae but they are also known as maggots. The larva is a small, white or cream colored, worm-like stage that hatches from the egg. The larva burrows into the breeding material where it feeds and grows for several days. Usually, the larva leaves the breeding material and moves to a dry, protected place just before becoming a pupa. Medical doctors use a special species of maggots to help patients with flesh wounds, especially burn victims. Maggots eat away the damaged flesh, which helps the wound heal.

When the larva has developed enough, it goes dormant into a pupal stage. The pupa is an inactive stage, like a cocoon, in which the adult fly develops. When they are ready to emerge as the adult fly, the pupa uses a sac-like structure, the ptilinum, in the head to blow out the top of the puparium. After leaving the pupal case, adult flies mate and the females begin to lay eggs and the cycle begins anew. Adult flies may live for several weeks.

Here are a few ways to keep the fly population down around your home. Keep your homes clean! Remove trash regularly and seal your garbage cans. Clean up pet waste immediately. Use fine mesh screens on doors and windows to prevent flies from getting into your home.

Now hopefully, the next time a fly gets anywhere near you or your food, you will take offensive action. Do you still have that image of a fly the size of an African elephant? Well, just so you know, the African Elephant weighs around 16,500 lbs (or **8 and one quarter tons**) and stands 10 - 13 ft tall at the shoulder. That would be one BIG fly.