

Cockroaches

Status

- Can transmit pathogens on its body
- Possible health threat Household Pest

General Information

There are about 4,000 known species of **cockroaches**. About 70 species are known from North America. Most species live in tropical areas. All cockroaches are **scavengers** that can eat nearly anything and are important in natural **decomposition** cycles. Some species enter homes and food establishments, contaminate food, have an unpleasant odor, and are considered pests. In the United States, six non-native species are serious pests. Here in Orange County, five of those pose the most problems: German cockroach, oriental cockroach, American cockroach, brownbanded cockroach, and smokybrown cockroach.

American Cockroach



Smokybrown Cockroach



Life Cycle

Cockroaches have three stages in their life cycle: **egg**, **nymph**, and **adult**. The adult female produces an **egg case (ootheca)** and carries it on the end of her abdomen. It looks like a small purse, first white in color then brown, and contains about 10-40 eggs. She drops the egg case about 5 hours after she produces it. Weeks to months later, the nymphs hatch from the eggs, break out of the egg case, and seek food. As they eat and mature, they outgrow their skin, grow a new skin layer, and shed the old one, a process called **molting**. Following each molt, the nymph has longer wings, though some species never grow wings. After the fifth growth-molt cycle, usually 3-4 weeks later, the cockroach reaches full size (adult) and has functioning wings (some cockroach species have no wings). The process of changing body forms while maturing is called **metamorphosis**.



Females may produce up to eight egg cases in a lifetime; in favorable conditions, she can produce 300 to 400 offspring. In some species of cockroach, the female needs to mate only once to be able to lay eggs for the rest of her life.

Health Risks

You may think that cockroaches only live in unsanitary living conditions. In reality, cockroaches can be found in virtually all economic and environmental conditions that provide the basic requirements of space, food, and climate. Some species are potential **vectors** of fungi, bacteria, and viruses (**pathogens**), responsible for diseases such as dysentery, salmonellosis, polio, and numerous others.



How Can You Get Rid of Cockroaches?

In general, proper **sanitation** combined with application of appropriate insecticides is required to eliminate cockroaches.

- Cockroaches especially love spilled foods and grease. Promptly clean up spills, uncovered food, and cooking surfaces.
- Keep food containers sealed and don't leave food out for extended periods. Even dirty dishes left in the sink overnight will attract cockroaches.
- Place garbage in plastic bags inside of trash cans.
- Keep trash can lids closed, and dispose of trash every week.
- Do not leave pet food outside.
- Seal all cracks in exterior and interior walls. Even small gaps will allow cockroaches to enter your house.

Will They Inherit the Earth?

Cockroaches are a very successful group of insects, surviving virtually unchanged for nearly 350 million years. They are among the hardiest insects on the planet. Some species are capable of remaining active for a month without food and are able to survive on limited resources like the glue from the back of postage stamps. Some can even go without air for 45 minutes. In one experiment, cockroaches were able to recover from being submerged underwater for half an hour. It is popularly suggested that cockroaches will "inherit the earth" if humanity destroys itself in a nuclear war. Cockroaches do have a much higher radiation resistance than vertebrates, at approximately 6 to 15 times higher than of humans. However, they are not exceptionally radiation-resistant compared to other insects, such as fruit flies.

