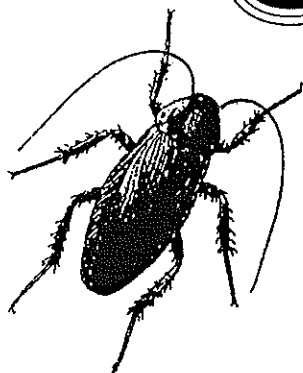


2005 UPDATE COCKROACH CONTROL GUIDE



Get Rid of Roaches — Breathe Easier!

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COCKROACHES AND ASTHMA

Many houses have problems with cockroaches. And many people with asthma are allergic to “roach dust.” Roach dust is made up of roach body parts and droppings. Roach dust is a very strong asthma “trigger.” Triggers cause asthma attacks.

For years, cockroaches have defeated our best efforts to get rid of them. We sprayed and sprayed, but they always came back. Now we understand there are better methods and products that really work.

The new products are also safer than the roach bug sprays that have been commonly used. The new roach control method is called “integrated pest management” (IPM). Pest control companies, landlords, homeowners and tenants can use IPM.

The roach dust is still around even after you get rid of the roaches. And the dust can trigger asthma. A thorough cleaning is important to get rid of all the roach dust.



THE OLD METHODS OF ROACH CONTROL DON'T WORK AND ARE NOT HEALTHY

Roach bug sprays, foggers and bombs have been used for years. But they don't work. They drive the roaches away for a while. And then the roaches come back.

The old method uses chemicals that are not

healthy. Some can even trigger asthma attacks. The old methods put too much bug spray poison into the air and leave too much on surfaces that people touch.

IPM METHODS WORK BETTER AND ARE SAFER

IPM works better than sprays at keeping roaches away. And IPM is safer because it reduces exposure to bug spray poison. The best pest control companies now use IPM.



The IPM methods:

- ▼ Deny roaches food, water, shelter and entry.
- ▼ Do not use roach bug sprays, foggers or bombs.
- ▼ Use borate powders, as needed.
- ▼ Use roach baits, as needed.

Use Borate Powder

Borate powders are effective chemical treatment for roaches. Examples are Borid™ and Roach Prufe™. Borate powder takes several days to begin killing roaches. But it can keep working for years. You can find it in many stores and it is not very expensive. It is important not to put borates to areas where children and pets can get to it.

Borate powder should be lightly applied in areas where roaches are active. As roaches walk through the powder, it sticks on their bodies. When they lick the powder off, it poisons them.

Borate powder should be applied with a plastic squeeze bottle with a narrow pointed spout. It should be applied lightly. It forms a barrier and roaches avoid it if applied too heavily. Be sure to mark the bottle BORATE and keep it out of the reach of children.

Apply the borate powder where roaches have been seen. Put it in these places:

- ▼ along baseboards
- ▼ under stove and refrigerator

- ▼ in electric switch boxes
- ▼ in holes in hollow doors
- ▼ around door frames, and
- ▼ in open spaces under and behind walls
- ▼ in open spaces around shelves, sinks and cabinets

After you place the borate powder in cracks and open spaces, seal it in with caulk or other sealer. The powder will keep working for years.

Place borate powder in a safe place, out of the reach of children and pets. Do not apply borate powder onto plants — it can kill them.

Use Roach Baits

Use roach baits along with the borate powders if needed.

Roach baits contain food that attracts the roaches. Poison in the bait kills them. After a roach eats the bait, it goes back to its hiding place and dies. Other roaches eat the body of the poisoned roach and they die too.

Each roach that eats the bait can poison dozens of roaches. So only a small amount of bait is needed to do the job. The baits should be placed where people do not come in contact with them.

Baits come in the form of gels, pastes, granules and dusts. Gels and pastes come in syringe applicators. This allows tiny amounts to be placed exactly where needed. Gels contain water and work best in the first three days. It may be necessary to put bait out twice, a week apart. Bait stations are bait containers that the roaches find and eat from.

You can buy roach baits at some hardware, grocery and drug stores. Common brands are Combat™ and Max Roach Bait™.

How to Use Roach Baits

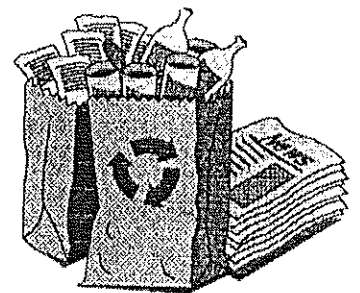
- ▼ Place the bait in a safe place, out of the reach of children and pets.

- ▼ Putting baits in the best place is very important. Roaches will eat the first food that they find. To work the bait has to be closer to the roach hiding place than other sources of food.
- ▼ Roaches need to find the bait during their normal activity. Place baits within 10-12 inches of hiding places, food sources, water sources and where you see droppings.
- ▼ Place baits next to the wall, along baseboards, at edges and in corners. Good spots are under sinks, in cabinets, under appliances, and near plumbing fixtures.
- ▼ Apply small BB-sized dabs of gel bait in many different places. Big blobs of bait do not work.
- ▼ Put more bait in the same spot if the bait is completely eaten. Roaches leave behind smells and droppings to mark good food sources.
- ▼ Baits will not work if roach bug sprays are nearby. DO NOT SPRAY ANY BUG SPRAY.
- ▼ Baits will not work if there are strong smells nearby. Cigarette smoke and strong smelling cleaners can keep the roaches away from the bait.

Deny Roaches Shelter and Entry

Roaches like to hide in very small spaces. A young roach can fit in a space as thin as a dime. An adult male can fit in a space as thin as a quarter. Roaches hate open spaces and love clutter.

- ▼ Clean up clutter such as piles of newspaper and clothing.
- ▼ Throw out grocery bags, cartons, boxes, and other containers. They may bring roaches and roach eggs in from the outside and provide hiding places.

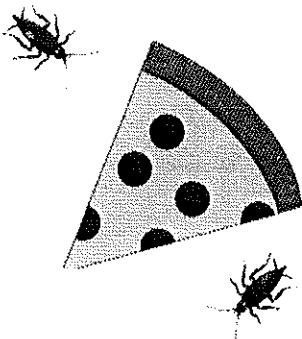


- ▼ Use a caulk gun to seal cracks and holes around baseboards, shelves, cupboards, pipes, sinks and bathtub fixtures.
- ▼ Spray foam can be used to fill holes, openings and electric outlet boxes where roaches like to hide.
- ▼ Plaster repairs may be needed where there are large holes or damaged walls.
- ▼ Screening can be used to block entry where there are openings such as vents.
- ▼ Knitted copper mesh (for example, Stuf-fit) will last longer than steel wool. It is a good barrier for holes that are hard to block.
- ▼ Weather stripping and door sweeps may be used around doors to create a tight seal.

Deny Cockroaches Food

Try to remove all roach food sources. Roaches look for food at night. The best time to make sure that things are cleaned up is before you go to bed.

- ▼ Keep clean all surfaces where food is prepared, stored, eaten or spilled. Clean up food scraps from floors, tables, chairs, counters, around appliances and anywhere food spills. Be sure to check the living room and bedroom areas where people eat.
- ▼ Don't leave food out on counters after use. Store all food in tightly sealed containers.



- ▼ Put pet food dishes away overnight or put the pet dish in a "moat." A moat is created by placing the pet food dish inside a bigger container with an inch or so of soapy water. Roaches will drown in soapy water.

- ▼ Wash dishes before going to bed or leave them in soapy water in the sink over night.
- ▼ Keep trash in a closed container. Remove all trash from the house daily. Keep the outside of the garbage container clean.

CLEANUP ROACH DUST – STRONG ASTHMA TRIGGER

Dead roaches, body parts and droppings become part of the household dust. This roach dust is a powerful asthma trigger for people who are allergic to it. Roach dust can be a strong asthma trigger for many years.

A person with asthma should not be in the room being cleaned. The cleaning can stir up the roach dust into the air. If the person with asthma has to do the cleaning, a dust mask may help.

For surfaces that can be wet-cleaned:

Use a household cleaner for counters, cabinets, floors, and woodwork. Use a paper towel or rag dipped in the the cleaning water to clean a small area. Then throw away the towel or rag and use a clean one. Don't dip the dirty towel or rag into the cleaning water. The idea is to pick the roach dust up and not just spread it around.

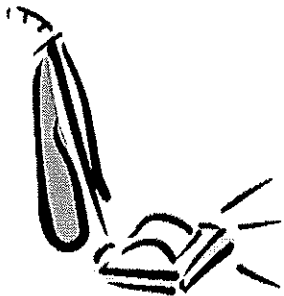
Use a cleaning bucket and a rinse bucket for large floor areas. Rinse the mop each time before dipping back in the cleaning bucket. Change the rinse water often.

Cleaning with bleach destroys the chemicals in roach dust that trigger an allergy reaction. Use about $\frac{3}{4}$ of a cup of household bleach in a gallon of water. Wait ten minutes to give the bleach time to work before rinsing the surface.

Be careful using bleach: Open a window and use a fan to remove the bleach vapors. Some people are sensitive to bleach vapors. They should not be in the area when someone is clean-

ing with bleach. Bleach is a skin irritant. Wear rubber gloves to protect your hands. Never mix bleach with any other cleaning products. Dangerous vapors can be produced.

For rugs and carpets: It is best to use area rugs that can be washed often. It is best to use special "HEPA" or "allergen" or "low emission" vacuums and bags when vacuuming. These reduce the amount of roach dust that gets in the air during vacuuming.



If you don't have the special vacuum or bags, use bags already half-

full. A new empty bag lets too much dust out. It also may help to clog the bag with flour or cornstarch when you put in a new bag. Pour a cup of flour or cornstarch on the floor and vacuum it up.

Vacuum very slowly. Take about three times longer than usual. This way you will pick up more of the roach dust. Listen to some music and take your time. A vacuum with a beater bar or powered brush works best.

Vacuuming stirs up dust. A person with asthma should not do the vacuuming and should stay out of the room when vacuuming is done and any dust settles. A respirator mask should be worn if a person with asthma must use a vacuum.

If there have been roaches in the house older carpets and rugs will have roach dust in them. They should be removed if possible. Other asthma triggers and lead dust also build up in carpets too.

Carpet removal can release a great deal of dust that goes all over the house. Removal needs to be done very carefully.

- ▼ A person with asthma should not be in the room when the carpet is removed.

- ▼ Seal off the room with plastic sheeting.
- ▼ Mist the carpet with water and a little dishwasher powder.
- ▼ Cut the carpet into small sections and roll them up.
- ▼ Wrap the sections in plastic sheeting and seal with tape.
- ▼ Mop the floor as each section is rolled up and again when all the sections have been removed.

Keep dust out of your home. Dust and dirt tracked into your house from the outside can contain roach dust and other things that can trigger asthma attacks. It also can have lead dust that can poison children.

- ▼ Put a sign at each entry door asking people to take off or wipe their shoes.
- ▼ A chair or stool by the door makes it easier for people to take off their shoes.
- ▼ One door mat inside and one outside is best. Wash or vacuum the mats often.



ROACHES CAN COME BACK — STICK TO THE PLAN

Roaches “hitchhike.” They can hide inside bags, soft drink cartons, cardboard boxes, used appliances, furniture, TVs, radios, or anything that people bring in from places that have roaches.

- ▼ Sometimes a single roach may be seen in the kitchen, even in the cleanest homes.
- ▼ It is important to try and get rid of the roaches before they become a bigger problem.
- ▼ Do not spray a roach if you see one. Smack it dead. Then check all around the area where you first saw the roach.
- ▼ Look through the clutter and anything brought in recently. Look for roach egg sacks.
- ▼ Stick with the methods for roach removal in this guide even if you think the roaches are gone. New roaches may find their way in.
- ▼ Continue doing things to deny roaches entry, shelter, food and water.
- ▼ If you live in a building with other families, roaches might get into your apartment from another one in the building. Share this Guide with your neighbors. Then everybody can use safer and more effective IPM roach control methods.

TENANT-LANDLORD COOPERATION

Effective roach control requires building owners and renters to work together.

The building owner must:

- ▼ Use a pest control service that uses safer and effective IPM methods.
- ▼ Make repairs to deny water to roaches, such as fixing roof and plumbing leaks.
- ▼ Caulk and seal entry points to keep roaches out.
- ▼ Provide sealed garbage cans and clean the area often.
- ▼ Keep common areas clean and free of food and water sources for roaches.

The renter must:

- ▼ Tell the building manager if roaches are seen. Also report water leaks and food scraps in common areas.
- ▼ Keep living areas free of things roaches like. Cleanup food scraps, clutter and water.
- ▼ Work with the pest control company. Do not disturb pest control measures. Do not use bug sprays. Do not use cleaners with strong odors near baits.



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