

Conduct this protocol if roaches are observed or reported at baseline, OR if child is allergic to roaches.

Key Messages:

- Roaches are common indoor pests found in all types of homes. Many homes have roaches, no matter how clean they seem.
- Getting rid of roaches from the home can help control asthma, especially if your child is allergic to roaches.
- The substances found in the shed cuticles of roaches, their feces, saliva, and eggs are allergens that can make asthma worse.
- It is important to figure out why there are roaches in the home and help get rid of them. Household members can take useful measures to reduce or totally eliminate roaches from a home. Important strategies include:
 - removing sources of water in the home
 - making food inaccessible to roaches
 - eliminating hiding places for roaches.
- The most important rooms to focus on are the kitchen, bathroom and the child's play and sleeping areas.

CAS/CHW Actions:

- Ask participant if they have observed any roach activity.
- Observe if any roach activity, actual or droppings, is present.
- Assess prior education received by client and assess client's knowledge.
- Assess for client's willingness to change behavior by eliminating cockroach attractants.
- Explain that because roaches are an asthma trigger, it is useful to know if they are present in the home, especially if the child is allergic to roaches.
- Explain that even if you haven't seen roaches, they can be present.
 - Explain that the next step is to see if roaches are in the home by setting up roach traps.
- Place roach traps.

- Reassess in 2 weeks to see how many roaches have been caught.
- If roaches are present, conduct roach elimination protocol.
- Give participant the cleaning checklist (attached) and discuss steps needed to prepare for the roach elimination visit.

CAS/CHW Future Visits/ Assessment:

- Check to see if the home has been thoroughly cleaned.
- If any cleaning tasks remain, inform the client that you will return when they are ready.
- Perform roach elimination protocol.
- After 3-4 months, repeat the assessment of roach activity by placing roach traps.
- If roaches are present, advise participant to prepare for roach elimination at the next visit.
- If roaches are detected, repeat the roach elimination protocol and:
 - review food handling and cleaning
 - check to see if all cracks are caulked and any remaining holes are plugged
 - check for leaky pipes and fixtures
 - replace bait smears with new ones
 - apply boric acid & seal cracks
- Once roaches are eliminated, inform the client that the house needs to be thoroughly cleaned. This is very important in order to get rid of remaining roach waste. If roach waste remains in the environment, it can continue to set off asthma.

Recommended Client Actions:

The following actions can help prevent a roach problem from developing or recurring:

- **WATER SOURCES:**
 - Repair leaky faucets and pipes.
- **FOOD:**
 - Store food in sealed containers.
 - Clean up food spills and crumbs immediately.
 - Encourage eating only at a table, such as in the kitchen or dining room, if possible.
 - Avoid bringing food into other rooms and eating in the bedroom.

- Clean up dishes after use or place them in soapy water.
- Keep garbage in closed containers and take out garbage every night.
- Clean up grease on stove.

- **HIDING PLACES:**

- Eliminate clutter such as such as empty boxes, cans, bottles, bags, and newspapers.
- Seal cracks in the walls.

Supplies:

- Roach Traps (Roach Trapper with peanut butter bait)
- Long handled mirror with light
- 5-gallon hard-plastic containers for food storage
- Avert and applicator
- Boric acid and applicators such as bulb syringe and cardboard
- Caulk & caulk gun
- Foam and wire mesh, gloves, wire cutters, hammer, staples
- Roach Bait Placement Form

Background:

- HOW TO PLACE ROACH TRAPS:**

- Bait traps with peanut butter in the center of the trap.
- Traps must be placed against a wall and preferably in a corner.
- Locate near food or water sources, as described:
 - Kitchen
 - under sink
 - behind refrigerator
 - behind or beside stove
- Bait traps with peanut butter in the center of the trap.
- Traps must be placed against a wall and preferably in a corner.
- Use 2-4 traps per room, as needed.

- Use the Roach Bait Placement Form (see attached) and indicate the exact location of the traps so that if repeat trapping is necessary, the traps can be placed in the same location. Record identifiers and the date that the traps were placed.
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- It is important for the client to NOT move the traps!

□ **PREPARING FOR THE ROACH ELIMINATION VISIT:**

- If the participant is an SHA (Seattle Housing Authority) tenant, refer them to the pest control supervisor at SHA-Impact Property Services. If the participant is a KCHA (King County Housing Authority) tenant, have them check with the building manager. If there is no resolution to their problem in a timely manner, consult with the project manager.
- If participant is a renter with a landlord who is trying to resolve the cockroach problem by bringing in a pest control service, advise the tenant to prepare for roach elimination as usual.
 - Encourage clients to speak with the landlord about the pest control service and ask about whether the pesticides are approved in homes where children are present. If client is unable to do so, consult with the project manager.
- For participants, follow the following steps:
 - Ask participant to prepare for roach elimination.
 - Explain that when the home is clean, the roaches will be more easily attracted to the bait and not to food sources.
 - Explain that client needs to do a thorough cleaning of their home so that roach bait can be used.
 - Advise client to wear gloves for the entire cleaning procedure.
 - Give the cleaning checklist (attached to this guideline) to the client. Explain that it includes:
 - Mopping the kitchen floors with detergent
 - Scrubbing the kitchen surfaces with detergent solution, including stove top and counters

- Vacuuming the carpeted floors
- Scrubbing other hard floors and woodwork with detergent
- Scrubbing walls and inside kitchen cabinets with detergent
- Keeping the garbage in closed containers and taking out the garbage every night.
- Advise client to vacuum up any visible roaches just before the roach elimination visit.
 - Roaches can be vacuumed up with the crevice attachment.
 - Try to remove all traces of the roaches, including the eggs.
 - Use the crevice tool to vacuum any cracks to get the roaches.
 - After vacuuming, take the vacuum cleaner outside, remove the vacuum bag, seal it, and discard in trash. Take a damp cloth and wipe down the entire vacuum cleaner.
 - Continue to vacuum or otherwise kill any roaches that are seen.
- Request that the stove and refrigerator be moved away from the wall before the roach elimination visit.
 - For gas stoves, move it out enough only to be able to reach behind.
 - For some stoves, if there is a bottom drawer, it is possible to reach behind the stove if the drawer is removed.
- Advise client to empty food cabinets before the roach elimination visit.

□ **HOW TO PERFORM ROACH ELIMINATION ACTIVITIES WITH THE PARTICIPANT:**

- Identify leaky pipes and fixtures and suggest that the participants repair them or ask their landlord to do so.
- Repair small holes by plugging around pipes with steel wool, foam and mesh.
- Apply boric acid in cracks only and seal cracks.
- Show the participant how to apply boric acid.
 - Together with the client, apply boric acid inside the cracks with applicator such as the bulb syringe.
- Together with the client, use a caulking agent to seal up these cracks.

- Do the kitchen as the top priority, followed by bathroom, laundry area. These are areas with water, and attract thirsty roaches. Then do the child’s bedroom.

□ **HOW TO APPLY ROACH BAIT:**

- Roach baits attract roaches and then the material in it kills them. Roaches die about 1-3 days after eating the bait and it usually takes 7-10 days to see reduced numbers of roaches after setting the baits.
- Show the participant how to apply abamectin smears and together apply 40-50 smears in the kitchen and apply 5 to 8 smears in each additional room as follows:
 - under kitchen sink
 - behind stove*
 - behind refrigerator*
 - in upper kitchen cabinets
 - in lower kitchen cabinets
 - in cabinet above refrigerator
 - in bathroom (behind toilet)
 - additional 5 smears per room in bedroom, basement, living/TV room and other rooms in which activity has been observed or roaches trapped
- *Note: if it is not possible to get behind stove or refrigerator, sprinkle boric acid on folded cardboard or paper and slip the cardboard behind or under these appliances, away from children. Inform participants that boric acid is poisonous and that it should only be used in cracks that will be sealed or in places that are inaccessible to children.
- Place bait near food and water sources, but not in places where it will get wet.
- Keep bait out of reach of children and pets.
- Tell residents NOT to move baits.

Education Handouts:

- Cleaning checklist for family to prepare for roach elimination
- “Roach Traps”

Roach Bait Placement

Caregiver:

Child:

CHW:

Date placed:

Date picked up:

Location	Roaches	Notes
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Kitchen -		
Child's bdrm - Closet top		
Child's bdrm - Closet bottom		
Child's bdrm - Near bed (1)		
Child's bdrm - Near bed (2)		
Other bdrm - Closet		
Other bdrm - Near bed		
Bathroom - Under sink		
Bathroom - Behind toilet		
Living room -		
Living room -		

Preparing for Cockroach Treatment: A Cleaning Checklist

A Community Health Worker /Community Asthma Specialist will be at your home on:

(Date): _____ (Time): _____

Please do the following before that appointment:

- Remove all items from the kitchen and bathroom cabinets, both upper and lower cabinets.
- Remove drawers from cabinets.
- Place all items from the cabinets on the table or the center of the floor and cover with a sheet or plastic tarp.
- Put open food in the refrigerator.
- Cover baby toys & crib mattresses.
- Remove any loose paper from shelves and discard.
- Remove all small appliances from the countertops. Large microwave ovens can stay where they are.
- Remove all items from the medicine cabinet & vanity. Towels, soap, etc. can be placed on a bed, in the bathtub or shower or in the center of the floor. Cover the bath items with a sheet or plastic tarp.
- If you have seen roaches in your clothes closet, then you must remove all of the clothes and other items from the closet and lay them on the bed.

► Areas that are not prepared will not be treated. Untreated areas may cause re-infestation of the treated areas.

► If you have special allergy problems, are pregnant, have a child under the age of one year, or have any other questions, please advise your Community Health Worker / Community Asthma Specialist. Please consult your doctor and follow his or her advice.

- After treatment:**
- Be careful not to touch the roach gel.
 - Wipe the cupboard shelves with a damp cloth. Place cups, glasses and dishes right side up.
 - You may use shelf paper, not contact paper, on the shelves.

It is normal to see cockroaches after the treatment. Please allow 3 to 4 weeks to see that they are gone. If there is still a problem, please call the Community Health Worker / Community Asthma Specialist that you are working with.

Roach Checklist

Key messages:

- Cockroaches: common indoor pest found in all types of homes.
- Getting rid of them can help control asthma, especially if allergic
- Strategies:
 - remove sources of water
 - make food inaccessible
 - eliminate hiding places
- Most important rooms
 - kitchen
 - bathroom
 - child's play and sleeping areas
- To prevent roach problem from developing or reoccurring:
 - store food in sealed containers
 - eat in one room
 - garbage in closed container
 - clean dishes after use
 - clean up food spills and crumbs immediately
 - remove roach hiding places
 - repair leaky faucets and pipes
 - seal cracks in the walls

Supplies:

- roach traps (Roach Trapper with peanut butter bait)
- long handled mirror with light
- 5-gallon hard-plastic containers for food storage
- Avert and applicator
- boric acid and applicator caulk and caulk gun
- foam and wire mesh, gloves, wire cutters, hammer, staples

Educational Handouts:

- Cleaning checklist for family (to prepare for roach elimination)