



BRANCH BASICS HEALTHY HOME SERIES:

HOW TO REPLACE TOXIC PESTICIDES

A GUIDE BY MARILEE NELSON

WHY IS THIS IMPORTANT?

Pesticides and herbicides are among the [most dangerous products](#) to have in the home or garage. Multiple hazards are associated with pesticide use in the home. Low-dose, chronic exposure can negatively impact the [nervous system](#), the [respiratory system](#), and the [reproductive system](#). Pesticide exposure has been directly linked to cancer, Parkinson's, ALS, behavior, mood issues, autism, ADD/ADHD, and other neurological conditions. They are [asthmagens](#) and asthma is the #1 chronic illness of American children. Pesticides and herbicides are pervasive, are endocrine disruptors, can cause birth defects, estrogen dominance, PMS, PCOS, endometriosis, and have been linked to both male and female infertility. Eating non-organic food and exposure to pesticides can disrupt and kill healthy bowel flora just as taking antibiotics disrupts the bowel ecosystem. Exposures reduce the body's immunity and this opens up the body up to infection. Many times when people come down with a cold or flu, they have been exposed to a pesticide that makes them more vulnerable to viruses and bacteria. They are not aware of that possible cause and effect. The suffix cide in a word on a label means kill. Pesticides, herbicides, biocides, fungicides, mildewcides, are [made to kill](#). Storing pesticides in the home create a toxic low-level chemical soup that the body has to detoxify. Removing them from your home and attached garage improves the air quality and takes a tremendous load off the body's detoxification system allowing that

energy to be used instead for regeneration and repair. This is especially important at night when you sleep so your body uses the time for restoration instead of detoxification.

STEP ONE: REMOVE

We always recommend making a clean sweep of pesticides from the home because there is no reason to review any label. So easy, no stress and much gain! Just get a box and take them ALL out! REMEMBER – even if you are not using them, the contents are escaping and polluting your home's air.

Walk through your home and check in cabinets, under sinks, in bathrooms, in laundry room, closets, and attached garage. Don't forget herbicides and commercial fertilizers ([destroy the microbiome of the soil](#)) in attached garages. Once you have done that take the box out of the house and dispose of them properly. Your home's air quality will automatically improve. Replace with only non-toxic alternatives - see below in Replace section.

Educating yourself and understanding this information is the key that will unlock the motivation to change. Look at this as an opportunity to practice proactive preventative healthcare for your family. Don't get bogged down and overwhelmed, if needed - take it step by step.

PESTICIDES & HERBICIDES TO REMOVE FROM THE HOME

- PESTICIDES
 - Research shows that there are widespread pesticide residues in most American homes. Consider that the amount of pesticides found in the air in homes is typically greater than would be expected. This is due to tracking in pesticides with shoes, stored pesticide containers within the home, routine pesticide treatment by exterminators, pesticides/herbicides that float in from outside, dust from the outside, and antimicrobial disinfectants. Consider that infants, toddlers, and pets are all traveling low to the ground so their exposure to any pesticides that have been sprayed/applied is much greater. Remove all insect repellents, DEET, herbicides, mosquito sprays, ant, wasp, and roach sprays, flea and bed bug treatments, foggers, lice shampoos and treatments from the home and consider clean up measures described in the Replace section.
- HERBICIDES
 - Garden herbicide use has been increasing since 1995. Herbicides like Roundup are used to kill lawn weeds, are used more than other pesticides, and are undermining our health. These herbicides are tracked into the home on shoes and also enter through spray drift. Remove from

home and garage and switch to alternative safe methods of lawn and garden care.

- **CONVENTIONAL FERTILIZERS**

- Conventional fertilizers deplete the soil and kill a large percentage of the beneficial soil microorganisms. Remove from home and garage.

- **PRODUCTS LABELED AS SANITIZERS OR DISINFECTANT**

- These products contain EPA registered pesticides which are designed to kill. The use of antibacterial products is weakening our immune systems. Some exposure to germs is good since that allows our immune systems to build up its own resistance.

- [Antibacterial Soaps Can Hurt Children's Immune Systems](#)
- [2010 – Too Much Hygiene May Affect Immune System](#)
- [Dangers of Waterless Hand Soap/Hand Sanitizers from Livestrong](#)

- We are a germ phobic society, we over practice hygiene and we are paying a very high price for this. The Center for Disease Control (CDC) is now recommending that we DO NOT use Sanitizers or Disinfectants in our homes because we have created a rampant spread of resistant superbugs. The National Cancer Institute estimates that there has been a 28% increase in childhood cancer since the addition of pesticides, biocides, fungicides, and mildewcides into household products.

- **FUNGICIDES AND MILDEWCIDES**

- There are many people who have had their homes treated for mold that got sick from the products used for cleanup! Using a fungicide or mildewcide to remove mold is exchanging bad for bad. For many people bleach is the go to mold killer. Bleach is highly irritating and corrosive to the skin, lungs, and eyes. Fumes from bleach can cause DNA damage, cancer, asthma, and a host of other illnesses. Neither the EPA or OSHA recommend using bleach for mold removal. See non-toxic EPA approved products for mold removal in the Replace section below.

- **ANTIBACTERIAL PRODUCTS – ESPECIALLY ONES CONTAINING TRICLOSAN**

- Note: Although Triclosan has now been banned in soaps and body care products it is still allowed in toothpaste and you may still have products in your home with this ingredient. Check antimicrobial soaps, toothpastes, mouthwashes, shaving creams, cosmetics, hand sanitizers, antiperspirants, deodorants, socks, laundry detergents, trash bags, facial tissues, antiseptics for wounds, toys, etc. Read your labels! Triclosan was the active ingredient in most antimicrobial soaps and many consumer products for years and was first registered as a pesticide in 1969. Triclosan was originally used in hospitals as a surgical scrub. There has been much controversy about this as it is used as a synthetic broad-spectrum antimicrobial agent in many products to stop or slow

growth of bacteria, fungi, and mildew. Unfortunately, it is now even being incorporated in more and more building materials due to the mold scare that is occurring from faulty construction methods. (If building or remodeling – make sure that materials do not have triclosan (Microban) and other antimicrobials added. Triclosan is being used so much that it is one of the most detected chemicals in U.S. waterways. Due to its extensive use in consumer goods triclosan and its very toxic metabolites are present in fish, umbilical cord blood, and human breast milk. The Canadian Medical Association has called for a ban on antibacterial consumer products such as those containing triclosan. This is because it contributes to the development of antibiotic-resistant bacteria, which is becoming a worldwide problem. This means that strains of bacteria have become resistant to antibiotics due to the overuse of antimicrobial agents and antibiotics so that when an antibiotic is needed for a lifesaving effort, the antibiotic does not work. Triclosan has been linked to hormone disruption, liver toxicity, possible impaired fetal development, weakened heart and muscle function, and the disruption of thyroid function.

- **LAWN CARE SERVICES**

- Despite the growing evidence that the herbicides used by lawn care services are hazardous to public health and the environment, the use of these services is exploding.
- Children, pets and the environment need to be protected. Cancel service and refuse to use!

- **FLEA/TICK COLLARS, FLEA BOMBS, AND TREATMENTS**

- Your pets deserve the best and they are very vulnerable to pet products intended to kill fleas and ticks.
- These pet products poison not only the pests, but also the pet and the owner. Pregnant women, young children, infants, the chronically ill, and the elderly are especially at risk to exposure.

- **BED BUGS**

- Currently there is a recent increase in bed bugs in the United States. This presents a problem for people who travel because hotels and motels are experiencing bed bug infestations, and this is one of the places where they are typically picked up. The increase is due to more travel, lack of knowledge about preventing infestation, increased resistance of bed bugs to pesticides, and the fact that bed bugs are difficult to eradicate.
- There have been deaths associated with the insecticides used to control bed bugs – www.cdc.gov/mmwr/preview/
- When you travel check to see if hotel/motel is treating for bed bugs? With that question you can discover if they are having an issue – if they are – ask how they treat for bed bugs. Stay in another place if the hotel/motel is using toxic pesticides.

- **HEAD LICE**
 - There is a head lice epidemic in American schools today. The lice are becoming resistant to the pesticide treatments.
 - Do not use a pesticide to treat head lice. One of the most popular today, Nix, uses permethrins to treat children's head lice. This is tragic because this can wipe out the bowel flora, trigger chemical sensitivity, and disrupt immune function. See safe options in the Replace section.
- **MOTHS**
 - Never use moth balls. They are very toxic
 - Moth balls are also especially toxic to animals
- **RODENT POISONS**
 - Baits (poisonous to dogs and cats and humans) Remove from home.
- **MOSQUITO ABATEMENT SYSTEMS - YARD INSECT FOGGERS**
 - Misting systems installed around the perimeter of the home to kill mosquitoes, etc. using toxic insecticides should not be used.
 - These systems use pyrethrins and pyrethroids and piperonyl butoxide – all have been implicated in chemical injury to infants, children, people with weakened immune systems, and the elderly.
 - Do not be deceived by the misinformation about pyrethrum related products that come from the chrysanthemum plant that are touted as being less toxic or non-toxic. Pyrethrum and related products are neurotoxins and endocrine disruptors.
- **TUBES IN THE WALL PEST CONTROL**
 - Unfortunately, this is becoming popular in newly built homes and is touted as being called “the cleanest, greenest, most effective and convenient pest control system ever”.
 - It is so simple because the pest control operator doesn't have to come into the home for regular treatments – all treatment is done from the outside. The tubes run in the walls and up into the attic, the pesticide is pushed by high-pressure air and comes out in a fine mist through slits in target areas.
 - If you are in a home that has these tubes, stop the service.
- **STOP ALL MONTHLY, QUARTERLY, ETC. PEST CONTROL SERVICE**
 - At the present time, the most popular pesticides being used in the home by exterminators now are pyrethrins and pyrethroids (synthetic) - based on the chrysanthemum plant mixed with PBO (piperonyl butoxide which is a common synthetic synergist that reduces an insect's ability to detoxify pyrethrum).
 - Many people are deceived by the misinformation put out by the pesticide companies. They state that they are using a natural, therefore safe product. Natural does not always mean safe - i.e. lead, arsenic, mercury, etc.

- Synthetic pyrethroids that have a similar structure and mode of action to pyrethrins are also used. Some of the common pyrethroids are Ambush, Ammo, Aztec, Pounce, Scourge, and Warrior.
- These pesticides are endocrine disruptors, immune suppressors, neurotoxic, wipe out bowel flora, can trigger allergic reactions and heart attacks. The residue will need to be cleaned up – see solution in the Replace section.

STEP TWO: REPLACE

After completing the removal of all pesticides, you have already dramatically improved your air quality. As mentioned above just the simple act of removing these products improves the air quality and takes a tremendous load off the body's detoxification system. Eliminating this immune stress increases the body's capacity for handling unexpected exposures to chemicals, increases the body's ability to handle natural pollens, dust and mold, increases the body's resistance to viruses and bacterial infection, and frees the body to use its energy to rejuvenate and heal if there is illness.

Now you are ready to "Replace" with safe healthy alternatives.

After removing all pesticide/herbicide products in the home, there are four steps to take:

1. Take general measures to reduce exposure.
2. Take measures to decrease pest entrance.
3. Use only non-toxic alternatives.
4. Clean up the residue of pesticides that are left in the home.

1. GENERAL MEASURES TO REDUCE EXPOSURE TO PESTICIDES

- Have a welcome mat at the front door for people to wipe their feet on before entering.
- Ideally, consider having people remove shoes when they come in your home.
- Complete removal of pesticides and herbicides and replace with non-toxic options – there are always options that are not harmful that can be used. Don't panic and think – "Oh heck I have to spray or fog or whatever..." you must understand the consequences. You do not want you or your loved ones to be exposed to poisonous chemicals, especially pesticides. Find another way. See options under #3 below.

2. REDUCE ENTRY OF PESTS INTO HOME

- Remove all ground cover, wood chips, or any potential insect habitats from around the home.
- Have appropriate grading and drainage
- Weather tightness - caulk areas to prevent insect entrance. Great non-toxic economical caulk that fills up to 1 inch gaps, is paintable, but also comes in many colors – Titebond Weathermaster Sealant

- Make sure openings are blocked with tight screen/mesh where appropriate.
- Place screening on all openings such as soffit vents.
- Provide for the prevention of excess moisture buildup from within, including humidity regulation that discourages condensation, extraction fans and windows that allow cross ventilation
- Make sure to always clean up areas leaving no food on countertops, floors, etc.
- Integrated Pest Management – the non-toxic options below may take care of your needs, but if you need professional help - Always specify NON-TOXIC Pest Control, not LEAST TOXIC when using an exterminator. You must make sure they know what you are talking about.
- AVOID all pyrethrin/pyrethroid/chrysanthemum flower-based pesticides. Research all materials proposed.

3. NON-TOXIC ALTERNATIVES

• PERSONAL BUG REPELLENTS

- [DIY Bug Repellent](#) - great tips from Wellness Mama
- [RediCare by Keys](#) – repels insects such as fleas, ticks, mosquitoes, fly’s gnats and ear mites. This product repels - does not kill.
- [Kosmatology Bug Repellent](#) - Protect your family from bug bites without DEET - contains a mixture of herbs and essential oils that are proven bug repellents, including rosemary, thyme, lemon and lavender. Includes shea butter and coconut oil that moisturizes. Vegan, free of preservatives and allergens and safe for use on the whole family.
- [Bubble and Bee Insect Repellent](#)
- [Bug-A-Boo](#)
- [Real Purity Insect Repellent](#)
- [Unscented Mosquito Repellent](#) - Good for pregnant women
- [Skeeter](#) - available in many stores
- [Mosquito Extreme Bracelets](#) – 508-224-2722

• ROACHES

- **Bait** – A Long Term Fantastic Solution – Mix equal amounts of cornmeal, powdered sugar, and Boric Acid (obtained at grocery pharmacy) in a bowl – stir to mix thoroughly. Place the powder in small bottle caps and place in areas where pets can’t access. Place under refrigerator, in cabinets, above cabinets, under furniture that pets can’t reach. It will take about two weeks for the roaches to disappear. Then will last up to 6 – 9 months before you need to refresh. The roaches do not develop resistance to this as they do to pesticides.

• ANTS

- [Ten DIY Ant Killers](#)
- [Killing Ants Naturally](#) - MommyPotamus
- **Environmentally friendly cure for fire ants** – from Georgia Gardener radio program – pour 2 cups club soda directly in the center of a fire ant

mound. The carbon dioxide in the water is heavier than air and displaces the oxygen, which suffocates the queen and the other ants. The whole colony will be dead within about 2 days. Leaves no poisonous residue, doesn't contaminate the ground, and does not kill other insects.

- [Uncle Albert's Ant Bait](#) and [KM Ant Pro](#) for fire ants and white footed ants. Uncle Albert's Super Smart Ant Bait used with KN Ant Pro liquid bait gravity feed dispenser 1- 941-445-4252. Ken Kupfer. Wonderful – gets to the queen – non-toxic.

- **SPIDERS**

- 1 t. coconut oil in 1 quart vinegar. Spray on spider webs.
- [Non Toxic Spider Killing Hacks](#)
- **Dr Bronner's Peppermint or Lavender Soap and Neem Oil.** To a quart of water add 5 T. of the soap, one ounce Neem Oil, 1 to 5 drops Premier Lavender Oil or Peppermint Oil (depending on your preference). Label it. Shake well and spray inside house where spiders are seen. Test for strength. May be done as often as needed. This is not a long-term solution but will provide you immediate help. Oils may stain some fabrics or light colored furnishings, test first. Spray outside the house: Use the same formula to spray the foundation, eaves and soffits, and the areas around doors, windows and crawlspace, or attic vents, or any area wher

- **WASPS/BEES/HORNETS/YELLOW JACKETS**

- [Natural ways to get rid of stinging insects - Understanding wasps.](#)
- [Homemade wasp /bee sprays](#)
- [Isopropyl Alcohol](#)
- [Non toxic wasp/hornet/yellowjacket spray](#)

- **MOSQUITOES**

- [Purple Martin Bird House](#) - Great for backyard birdwatcher's! A group of Purple Martins is capable of eating tens of thousands of mosquitoes in a single day.
- [BatBnB](#) - Natural pest control - Bats love mosquitoes! Provide a house for them in your yard.
- [Great mosquito repelling options](#) - decorative ways to repel mosquitoes
- [Spartan Mosquito Eradicator](#) - puts a mosquito barrier around your yard that attracts mosquitoes with carbon dioxide. The mosquito population will suffer dramatically in the first 15 days and will be 95% controlled for up to 90 days.
- [Mosquito Barrier](#) – 1-800-424-7990 This product is used on golf courses, city parks, and city recreational areas. See website for testimonials. This is a very strong liquid garlic that has a natural sulfur which repels insects such as ticks, fleas, and mosquitoes. Mix it with water and spray on the lawn. This will repel mosquitoes for up to 30 days. Mosquito Barrier

has a strong smell for an hour or two. Several applications are recommended for best results.

- Mosquito Extreme Bracelets – 508 –224-2722 for ankles and wrists – bracelets impregnated with repellent ingredients – calendula, silica, cayenne, cinnamon, red cedar, white pine, aloe, vitamin E and graphite as well as frequencies that repel mosquitoes.

- **MOTHS**

- Steps to Get Rid of Moths Naturally
- Alternatives to moth balls - Dr. Mercola

- **GENERAL ALTERNATIVES FOR ANTS, TICKS, MOTHS, ROACHES, BEETLES, ETC.**

- Wondercide for Home, Pets, Lawn - test these products as some they may have a strong smell.
- Earthkind - Even though non toxic - test these products as they may have a strong smell - They have a money back guarantee if you don't like the way it smells.

For more information about how to manage pests in a least toxic way -call BIRC – Bio-Integral Resource Center

Safe management of our water table - safe lawn and garden care

- **HERBICIDES**

No toxic chemicals should be used on the lawn. This is dangerous to children playing in the yard. The healthier the lawn the more resistance to weeds and insects the lawn is - See below in Lawn Care Services.

- **Great DIY Weed Killer:**
 - 1 gallon vinegar
 - 1 cup salt
 - 8 drops dish soapStir ingredients together in a bucket until well combined. Transfer to a container with a spray top. Spray on weeds. Spray area a couple of times within a 7 day period.
- **Roundup Replacement** - EcoClear by Ecoval - 828-265-9675 - Jeff Trevans at EcoSaveEarth – <https://ecosaveearth.com/> U.S. Division. Canadian division - 1-866- 298-2229 Call Michael Dreben at 917-596-8088 - ecoval@ecoval.ca . Anywhere Roundup is used you can use EcoClear to replace it. This is a vinegar weed herbicide using acetic and citric acid. Scientific studies have shown that EcoClear is 3 times more effective than acetic acid alone. Canada has banned Roundup - EcoClear is being used in Canadian schools, by lawn care companies, farmers, greenhouses, parks departments, and in Canadian botanical gardens.

- **Red Dragon Torch Kit** – attach it to a propane tank. available from ACE Hardware. This is a hand held flamer attached to a propane tank with a long wand on it that is directed at the ground. Grasses have evolved that are resistant to flame. Ground Ivy and weeds are vulnerable to flames.
- **LAWN CARE SERVICES**

The soil is a critical component of having a beautiful disease resistant lawn.

 - Decontaminate lawn if formerly treated by companies like Chem Lawn - Call Stewart Franke for products used to decontaminate and neutralize chemicals used on lawn. [Medina Agriculture Products](#) 1-830-426-3011
 - Natural Lawn Care - [great article](#) from Wellness Mama.
 - Choose only pesticide free lawn care
 - [Lawn of America](#) - pesticide free lawn care
- **ORGANIC GARDENING**
 - [Bionutrient Food Association](#) - Incredible nutrient dense gardening guidance! Please read if you want to grow your own food.
 - [GMO Free Fertilizer](#) - Certified for vegan organic growers. The problem now is getting fertilizers without GMO soy, corn, etc.
 - [Medina Agriculture Products](#) 1-830-426-3011 – Ask for Stewart Franke. Medina products are the highest quality, biologically based soil conditioners and natural/organic fertilizers since 1962. The purpose is to get soil conditions right so that it produces the healthiest plants that are disease resistant.
 - Compost. Compost is the best material to add to your soil—it contributes nutrients and organic matter, provides habitat for beneficial microorganisms, and helps improve the soil’s texture. It is pretty much impossible to know what is in commercial compost, especially since more and more municipalities now compost food waste that includes meat and dairy products. [Making your own compost](#) ensures that you know exactly what it contains.
 - Garden Pest Control and Companion Planting - [guide](#) from Wellness Mama.
- **REPLACEMENT FOR SANITIZERS OR DISINFECTANT WITH EPA PESTICIDES**
 - **Sanitizers**
 - The CDC states that washing your hands with soap is like a [do-it-yourself-vaccine](#). The CDC recommends using natural soaps or cleaners with surfactants like Branch Basics (instead of sanitizers) that remove the germs completely instead of kill them. If no water is available then the CDC recommends the use an alcohol based sanitizer as described below.

- **Sanitizers made with Ethyl Alcohol** (same alcohol that is in wine, beer and liquor) - are not as likely to cause this superbug issue. Alcohol acts in a completely different manner than a pesticide and kills germs through a mechanical action within seconds by physically destroying the cell membrane and scientists thought that there is no mechanism by which the germs can become resistant to it. The concentration of alcohol must be at least 62% to have this instant kill effect. Unfortunately, [recent studies](#) indicate some bacteria have a growing tolerance to alcohol and this is a growing concern.
 - For example - [Honest Company Hand Sanitizer](#)
- **Sanitizers with Essential Oils** that have Sanitizer or Disinfectant Status
 - The EPA has a list of natural ingredients that pass EPA standard for Sanitizers and Disinfectants that are called biopesticides that are exempt from the requirements of FIFRA (40 CFR 152.20(a)). ...
 - For those who don't want alcohol based sanitizers
 - Thymol made from thyme is an example of a biopesticide.
 - For example - [Cleanwell Hand Sanitizer](#)
 - Note: This product has a strong smell
- Karachi Health Soap Study revealed that plain [soap with no antibacterial agents](#) (sanitizer) gave the best protection from disease - better than sanitizers or vaccines. The goal of the study was to assess the impact of hand washing and bathing with soap in settings where infectious diseases are leading causes of childhood disease and death

Note: If you are still uncomfortable, concerned about germs, and want to use a disinfectant for cutting boards and other uses - see below

o **Non-Toxic Disinfectant Options**

- **Vinegar and Hydrogen Peroxide** - [Study shows](#) that [Vinegar](#) and [3% Hydrogen Peroxide](#) used in combination (in separate bottles) are more effective at killing germs than chlorine bleach or any commercially available kitchen cleaner. Vinegar is good at killing some germs and hydrogen peroxide is better at killing others.

- **Team Branch Basics and Microfiber with Vinegar and Hydrogen Peroxide for a Powerful Homemade Disinfectant Team**

Materials Needed:

- Branch Basics All Purpose or Bathroom Cleaner
- Split fiber Microfiber
- Distilled White Vinegar (5% acidity)
- Hydrogen Peroxide (3% solution - brown bottle)
- A spray nozzle for the brown bottle of peroxide
- A spray bottle for the vinegar (or a spray nozzle for the bottle if it will fit)

Cleaning and Disinfecting Process

- Step 1: Before using the vinegar and hydrogen peroxide, clean the surface first with a microfiber and Branch Basics or soap and water to remove germs, dirt, grease and grime. Most people don't realize that just spraying a countertop, cutting board, or surface with a disinfectant and wiping it off does not get rid of germs.
 - Dirt and grease interfere with germ killing abilities of sanitizers and disinfectants. They should first be removed with a product like Branch Basics or plain soap and water.
 - You must also incorporate the dwell time specified on the disinfectant which can be anything from 30 seconds to 30 minutes.
- Step 2: Rinse with hot water if surface is a cutting board. Just these first two steps can completely remove germs, but if there is still concern on cutting boards, food, countertops continue.
- Step 3: The vinegar and hydrogen peroxide must be in separate bottles - do not combine. Screw a spray nozzle top onto your brown bottle of hydrogen peroxide. Exposure to light breaks down hydrogen peroxide so the brown bottle protects it. Put white distilled vinegar in a separate spray bottle, or find a nozzle that will just fit on your bottle of vinegar.
- Step 4: Spray the surface with one of the liquids. The order doesn't matter. You can start with either the vinegar or the peroxide. After spraying, let it sit for 5 minutes (dwell time), then wipe with a microfiber.

- Step 5: Repeat with the other bottle by spraying the surface, letting it sit for 5 minutes (dwell time), and then wipe with a microfiber.

Note: Vinegar contains acetic acid which is a lung irritant - open windows and/or use ventilation when using.

- **REPLACEMENT FOR FUNGICIDES AND MILDEWCIDES**

Always make sure you have taken care of the moisture issue, leak, or cause of mold growth first. Then clean up the mold.

- **Borax** - deodorizes, cleans and disinfects – making it a really good inexpensive choice to help fight off and kill mold. Borax is considered a non toxic cleaning product* in that it does not emit chemicals or dangerous fumes like most mold killers. Borax is used as an insecticide, herbicide and fungicide and it can be mixed with water in a solution to kill and remove mold. It is a natural mold inhibitor.
 - HEPA Vacuum up area of loose mold to lessen the number of spores stirred up into the air during the cleaning process.
 - Borax: Dissolve 1 cup borax with enough water to make 1 gallon. Borax kills mold in this ratio.
 - Apply the solution to the surface and scrub with a brush; don't rinse.
 - Wipe the surface dry.
 - You don't need to rinse off the borax as the solution will prevent more mold beginning to grow on the surface again.

* Borax is harmful IF you swallow it

- **Hydrogen Peroxide** - is non-toxic, does not leave a toxic residue after use, is not harmful to the environment, is very inexpensive and produces no toxic fumes. It is also an antiviral, antifungal and anti-bacterial agent. Hydrogen peroxide can be used to remove mold from porous materials such as clothing and walls. Make sure to spot test any areas to be cleaned first as hydrogen peroxide also functions as a mild bleaching agent.
 - HEPA vacuum up area of loose mold to lessen the number of spores stirred up into the air during the
 - Hydrogen peroxide: Spray full-strength 3% hydrogen peroxide on the moldy surface and let it sit for 10 minutes to loosen the mold.
 - Scrub with brush if necessary to remove mold
 - Wipe the surface and don't rinse.
 - Afterwards store the spray bottle in a dark place since light diminishes hydrogen peroxide effectiveness.

- **Branch Basics or Natural Soap** - A solution of All-Purpose Branch Basics or natural soap and warm water can be used to scrub surface mold off non-porous surfaces. Although this doesn't kill mold, if the mold is on non-porous materials then the solution will remove it and doesn't need to kill it as long as you completely clean away all the mold on the surface.
 - Benefect Decon 30 - this is an EPA approved disinfectant that is made of essential oils. Do not recommend in an occupied home or must be able to leave home until smell has been ventilated out. Prefer the options above. Very strong smell. The original product Benefect is even stronger and is not recommended.
 - Homebiotics - inhibits mold from growing and improves your home's microbiome! If you have an existing mold issue, remove and clean the area first with options above. Homebiotic is best applied before a mold issue occurs, or after the issue has been cleaned up and resolved to help prevent future mold growth.
- **REPLACEMENT FOR PRODUCTS WITH TRICLOSAN OR ANTIBACTERIAL LABELS**
 - Read your labels! Do not buy anything that states it is antibacterial, anti-fungal, or mold resistant. Check soaps, toothpastes, mouthwashes, shaving creams, cosmetics, hand sanitizers, antiperspirants, deodorants, socks, laundry detergents, trash bags, facial tissues, shoes, toys, children's school supplies like scissors, etc.
 - Unfortunately, antimicrobials are now even being incorporated in more and more building materials due to the mold scare that is occurring from faulty construction methods. (If building or remodeling – make sure that materials do not say “antibacterial”, “mold resistant”, do not have triclosan (Microban) or other antimicrobials added.
- **FLEA/TICK COLLARS, AND TREATMENTS**

Pet owners should use human/pet safe products on their pets.

 - Dr. Mercola recommendations for pets
 - Protect your dog from ticks - Keep pets safe!
 - Dirty Paws Dog Shampoo kills fleas
 - Flea and Tick Control - For Simple Steps to Take see the following link.
 - RediCare by Keys – repels insects such as fleas, ticks, mosquitoes, fly's gnats and ear mites. This product repels - does not kill.
 - Natural Flea Collar - Medipatch – Tick and flea collar – all natural safe ingredients
 - More natural flea and tick remedies – flea collars The Holistic Flea and Tick Collar
- **FLEA/TICK/MITES/BED BUGS BOMBS**

Never ever consider this measure with conventional foggers. The pesticide is incorporated in every nook and cranny of every material in your house. If you

have exhausted all other options consider the following - but do not use if have anyone in home that is chronically ill because of the terpenes from the cedar.

- [Cedarcide Fogger 1-800-842-1464](#) Please watch video on this process.
 - Recommend that you either choose a few items to be fogged or choose one small space/room with this fog to determine how long it takes for product to dissipate and to determine if desired. Some people are sensitive to cedar. Stay out of home until all fumes from fogging have dissipated to no odor.

- **BED BUGS**

- Nontoxic ways to deal with Bed Bugs - [Wellness Mama](#)
- Basic Steps to take
 - Wash all bedding in water that is very hot (at least 130 degrees F) and Branch Basics.
 - Dry in long hot dry cycle
 - HEPA vacuum mattress, pillows, box springs, and bedroom.
 - Repeat
 - Consider cedarcide fogging option above only after repeating this method twice and if you can leave home until all smell dissipates.
 - When you travel check to see if hotel/motel is treating for bed bugs? With that question you can discover if they are having an issue – if they are – ask how they treat for bed bugs. Stay in another place if the hotel/motel is using toxic pesticides.

- **TICKS**

- Tick Control Tips - [repel them](#)
- Ticks - How to Prevent Tick Bites - [Wellness Mama](#)
- Two Natural Tick Repellents by [DIY Natural](#) & [Mommypotamus](#)

- **HEAD LICE**

- Saline Based Lice Spray and other Natural Ways to Treat Head Lice - [by WellnessMama](#)
- [Lice](#) - Use [Neem](#) for head lice
- [Natural remedies](#) for lice removal.
- Basic Steps to Take
 - Wash all bedding in water that is very hot (at least 130 degrees F) and Branch Basics.
 - Dry in long hot dry cycle
 - HEPA vacuum mattress, pillows, box springs, and bedroom.
 - Repeat

- **RODENT POISONS**

Baits are poisonous to dogs and cats and humans.

- [Humane Ways](#) to get rid of Mice
- Non-Toxic Ways to deal with rats - [Dr. Axe](#)

- Mouse Traps – available online
 - Non-poisonous baits – for use with catch and release traps or glue boards.
- **DECONTAMINATING TUBES IN THE WALL PEST CONTROL**
 - Flush this system with Branch Basics All-Purpose if possible. Talk to pest control company about possibility of using this method.

IMPORTANT: Stop all monthly, quarterly, etc. pest control service. The first step is to stop the service. Next, the residue will need to be cleaned up. If treatment has been both indoor and outdoors, then decontamination can be done.

4. CLEAN-UP PESTICIDE RESIDUES IN THE HOME.

The following will help to reduce the pesticide load in your home if it has a pesticide history. Each time you clean the house - it will help to reduce the levels. Also consider a complete [deep clean](#) of the home as an option if serious contamination is an issue.

PRODUCTS NEEDED FOR PESTICIDE REMOVAL/NEUTRALIZATION

- [Super Washing Soda](#) – fragrance free /unscented Sodium carbonate breaks down organophosphate pesticides such as Diazanon which was banned in 2002 and Dursban which was banned in 2005
- Branch Basics Concentrate – www.branchbasics.com After cleanup of pesticide residues use Branch Basics for maintenance cleaning of all baseboards and surfaces.

STEPS TO REMOVE PESTICIDE RESIDUE

Step 1 – [HEPA vacuum](#) - All surfaces. Pesticides ride on dust and this first step will lower the level.

- An abatement rated vacuum is critical so that you don't contaminate with dust that is already in the vacuum or dust that spews out as you clean. Conventional vacuums typically make the air quality worse after vacuuming. If you don't have a good vacuum, skip to step 2 and purchase a good hepa vacuum when possible.
- Ideally, start with the ceiling, then the walls, and last the floors.
- Vacuum all surfaces in the home - furniture, knick knacks, books,

Step 2 – **Attention to baseboards.** Typically when a home is treated by a pesticide service, the baseboards in the home are treated.

- To reduce pesticide load in general in your home
 - Clean baseboards with Branch Basics All Purpose Cleaner
 - Do a deep clean when able.
 - Maintain and clean with Branch Basics All Purpose
- If your house was built before 2005 then there is a good chance that an organophosphate pesticide has been used in the home.

- Sodium carbonate has been shown to break down organophosphate pesticides such as Diazanon which was banned in 2002 and Dursban which was banned in 2005.
 - Wipe down all baseboards where pesticides typically are applied with a solution of Super Washing Soda (sodium carbonate) per gallon of distilled water. Use Super Washing Soda by Arm and Hammer - available at grocery stores and ACE Hardware.
 - Use a .5% solution of Super Washing Soda in distilled water – Use 2.4 teaspoons Super Washing Soda per gallon of distilled water (a little less than 2 ½ teaspoons)
 - Dissolve Washing Soda thoroughly in the water.
 - Clean all surfaces with Washing Soda.
 - Wipe down baseboard and surfaces with distilled water if there is residue left from Washing Soda.
 - Final step - Wipe down all baseboards and surfaces with All Purpose Branch Basics.
- If your house was built after 2005 clean with Branch Basics All Purpose Cleaner. Branch Basics removes the Pyrethrin/permethrin based pesticides being used today.
 - Use a microfiber and All Purpose Branch Basics to wipe down all baseboards and where pesticides typically are applied in your home



MARILEE NELSON is a Texas-based Environmental Consultant, Building Materials Specialist, and co-founder of Branch Basics. She is on a mission to inspire, motivate and empower people with information that will enable them to take proactive charge of their health and experience the transforming power of eating real food and creating a truly healthy home.

VISIT [BRANCHBASICS.COM](https://branchbasics.com) + FOLLOW [@BRANCHBASICS](https://twitter.com/branchbasics) TO LEARN MORE

SUPPORTING REFERENCES

Here are links to references that support the statement that pesticides are directly linked to disease.

PESTICIDE INDUCED DISEASE - DATABASE

<http://www.beyondpesticides.org/health/index.php>

ADD/ADHD

http://www.nbcnews.com/id/44260583/ns/health-childrens_health/t/pesticides-food-linked-adhd-kids/

<http://www.webmd.com/add-adhd/childhood-adhd/features/pesticides-and-adhd-is-there-a-link>

<http://www.hsph.harvard.edu/news/multimedia-article/adhdpesticide/>

<http://www.cnn.com/2010/HEALTH/05/17/pesticides.adhd/>

ALZHEIMERS

<http://www.beyondpesticides.org/health/alzheimers.php>

<http://www.ncbi.nlm.nih.gov/pubmed/23416173>

<http://news.rutgers.edu/research-news/pesticide-exposure-linked-alzheimer%E2%80%99s-disease/20140127#.VUECQCFViko>

<http://www.bbc.com/news/health-25913568>

AUTISM

Autism - pesticide connection

<http://www.environmentalhealthnews.org/ehs/news/2014/jun/autism-and-pesticides>

Autism - exposure to pesticides in pregnancy

<http://consumer.healthday.com/cognitive-health-information-26/autism-news-51/pesticide-exposure-in-pregnancy-linked-to-autism-risk-in-kids-689083.html>

Autism - pesticide connection

<https://www.autismspeaks.org/science/science-news/more-evidence-linking-pesticide-exposure-autism>

Autism - 3rd study

<http://www.reuters.com/article/2014/06/23/us-pesticides-pregnancy-autism-idUSKBN0EY1BF20140623>

CANCER

<http://www.seattlepi.com/lifestyle/article/Study-Home-Pesticides-Linked-to-Childhood-Cancer-897342.php>

<http://www.rodalorganiclife.com/wellbeing/pesticides-and-cancer>

<http://www.psr.org/environment-and-health/environmental-health-policy-institute/responses/parental-pesticide-exposure-childhood-cancer.html>

<http://onlinelibrary.wiley.com/doi/10.3322/caac.21170/full>

<http://www.canceractive.com/cancer-active-page-link.aspx?n=1253&Title=Pesticides%20and%20their%20links%20to%20Cancer>

<http://www.revealnews.org/article/use-of-monsanto-pesticide-linked-to-cancer-has-boomed-in-california/>

<http://www.cfp.ca/content/53/10/1704.full>

<http://www.toxicsinfo.org/Lawn/Pesticides%20&%20Cancer.htm>

<http://www.activistpost.com/2013/06/multiple-scientific-studies-link.html>

PARKINSON'S

<http://www.scientificamerican.com/article/parkinsons-disease-and-pesticides-whats-the-connection/>

<http://articles.mercola.com/sites/articles/archive/2014/02/20/pesticide-exposure-parkinsons-disease.aspx>

<http://www.medicalnewstoday.com/articles/272097.php>

<http://www.healthline.com/health-news/aging-pesticide-exposure-tied-to-parkinsons-risk-020314#2>

<http://www.beyondpesticides.org/health/parkinsonsdisease.php>

Learn more about endocrine disruptors

- [Hormone Disruption and Women](#)
- [Hormone Disruption and Men](#)
- [Hormone Disruption](#)