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1 Introduction

They may look small and seem harmless – but fleas are a BIG problem. In fact, they are one of the most common, most frustrating problems pet owners face. If you own a dog or cat, it is almost certain at one time or another that you will have to deal with fleas.

There are many commercial products available to prevent, control, and kill fleas, but the majority of these products contain unsafe, harmful ingredients. Often these ingredients are toxic to the very animals they are supposed to protect – and can even do harm to you and your family. As a result, you may wish to minimize the use of such products and instead use natural methods and substances to control and eliminate fleas.

In writing this book, extensive research has been done on many natural ways to fight fleas. While all of the substances we include in this book are “natural,” some of them may be harmful or toxic (although they are rarely as harmful as toxic pesticides). Any cautions the author is aware of in discussing these substances will always be included.

As you will see, fighting fleas the natural way requires some experimentation with the right formula, and some patience in finding the right methods and substances for your own particular situation. But the payback is considerable:

- You will be using natural methods and therefore protecting yourself, your family, your pets, and the environment from toxic chemicals.
- You will develop your own flea control treatment plan that will be most effective for your climate, your pets, and your home.
- You will eliminate the need to use potential harmful and toxic chemical treatments on your pets and in your home.
- You will save money on expensive chemicals.
- You will be the envy of everyone else who has a flea problem – because you will have solved it.

The author hopes this book will be the only guide you need for a flea-free existence!
2 Getting to Know The Enemy

“The flea, though he kill none, he does all the harm he can.”

- John Donne, English poet, 1572 – 1631

The Mighty Flea

While the flea cannot itself kill a dog, cat, or human, it can create a serious health problem for all of these species. Fleas can carry and transmit diseases. Fleas can cause dermatitis, a skin condition, in animals and humans. If you are allergic to flea bites, fleas can become more than a minor irritation. And fleas are notorious for infesting the homes of humans.

So how did this tiny insect, no larger than the head of a pin, become so mighty?

Fleas have pestered man and his domesticated animals for many centuries. Poet John Donne wrote about the flea in the Seventeenth Century, saying the flea “does all the harm he can.” Even an old Arabic curse invokes the mighty flea and it is still in use today: “May the fleas of a thousand camels…” (you can finish the phrase any way you wish).

The flea is an elegantly simple insect that does two things very well: eat and reproduce. (Well, it also does a fine job of defecating, but we’ll get to the importance of that later.) Much like a mosquito, the flea is biologically designed to be a superb blood sucker – and it knows just how to find mammals to obtain this food source. The flea is wingless, so it moves around by jumping; in fact, a third pair of legs on the flea makes it an excellent jumper. That’s why fleas can easily go from the carpet to the couch, from grass to a dog, from one dog to another, or from a cat to a human. These little devils really get around.

Why are there so many fleas? A flea’s life span is counted in days, so they don’t live very long, but they reproduce constantly and in great numbers.

Yes, fleas have sex! A male flea mates with a female flea and fertilizes her eggs. But the female flea also needs a blood meal to lay eggs. A single female adult flea can lay as many as 25 eggs a day, and could lay up to 800 eggs before she dies.

Types of Fleas

There are about 2,200 flea species throughout the world, but don’t panic. Humans typically encounter only a few:

Cat flea – This is the most common flea in the United States. Despite its name, the cat flea will suck the blood of not only cats, but also dogs and humans.

Dog flea – The dog flea really does like dogs best. It is more common in Europe than in the United States.
FLEA CONTROL: How to Get Rid of Fleas Naturally

Human flea – The human flea is so named because it is particularly toxic to humans. Its bite can cause allergic reactions or dermatitis, a skin condition. This flea also is a carrier of tapeworms, which can be transmitted to dogs.

Oriental rat flea – This flea is less common in the United States, but it does occasionally appear in warmer weather. The Oriental rat flea prefers rats and mice, but when these animals die, the flea moves elsewhere. The flea might carry with it a bacterial disease known as plague. You may recall from history that bubonic plague, or the “black death,” was one of humanity’s most serious challenges. Today, these fleas can still carry plague. Animal infection is possible, but human infection is rare in modern society. Antibiotics are available to effectively treat an infection.

Flea Life Cycle

You have enough to worry about, so why should you care about the life cycle of a flea? As the saying goes, “A little knowledge is a dangerous thing,” and knowing a little about the flea life cycle will make you better able to understand why they are ever-present, and when prevention and treatment can be most effective.

Fleas start with eggs – many, many eggs. An adult female is fertilized by an adult male and can lay multiple eggs after each blood meal. (Remember, the flea is an eating and reproducing machine.) These
eggs are very tiny but you can see them. They look kind of like grains of uncooked rice. Fleas will lay eggs anywhere, including on the host animal, so it is not uncommon for dogs to essentially become breeding grounds for fleas. Fleas love warm temperatures and high humidity, so in these conditions, the eggs can hatch within a few days. Fleas are difficult to kill in the egg stage, because the egg acts as protection.

After hatching, fleas become larvae. Larvae appear to be white worms and are typically larger than an adult flea, so larvae may be easier to see than fleas themselves. The larval stage may last a few weeks under optimum environmental conditions, or months under adverse conditions.

Larvae become pupae by spinning cocoons. The color gradually changes from light to dark, taking on a brownish hue. This is the stage at which the adult flea is developing. Pupae are essentially inactive until they find a host to prey upon, but this could occur in less than a week. Nirvana to flea pupae is something that’s warm and moves, because it usually is a mammal.

Finally, the adult flea emerges and seeks its first meal. An adult flea could live perhaps a month or two without blood. The adult flea will be no longer than 1/8 of an inch (0.3 cm). It takes on a black, dark brown or red-brown color.

The entire life cycle of the common cat flea – from egg to adult – can occur within 20 to 35 days. The problem, however, is that this is entirely dependent on environmental conditions. Typically, the life cycle is shortened under warm, humid conditions (that’s why more fleas emerge during “flea season”) and lengthened under cooler, dry conditions (that means fleas take longer to emerge, so there may be fewer of them). But make no mistake – wherever you live, and whatever the conditions, if you have a pet in your home, the chances are good to excellent that you will also have fleas in your home.

You can see from the life cycle why it is important to approach flea prevention and control as an on-going process. You never know exactly what stage of life a flea is in. You need to 'stand guard' by using the most effective methods and techniques, regularly and consistently.

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How Fleas Operate

Knowing how fleas operate, and what they like and don’t like, will help you control them. Fleas like warm and humid conditions, both for reproduction and for their living environment. They can live outdoors and indoors. In fact, fleas live virtually anywhere – except in extremely high elevations and extremely dry conditions. Generally, the cooler and drier the better in terms of
reducing the severity of a flea infestation.

Fleas are not fussy about where they reside or lay their eggs, as long as it is relatively warm, so they can appear most anywhere – in your garden when the weather is temperate, in your carpet, in the cracks of your floors, or on your couch. Fleas gravitate towards a warm-blooded animal (the “host”) and infest both the animal and its environs, particularly where the animal sleeps.

The flea will move around the animal and find places where blood is easy to obtain. It can and will jump from one animal to another – it isn’t particular about where it’s next meal is coming from, as long as it’s a warm-blooded mammal. But fleas are definitely partial to dogs and cats. The female flea, once fertilized, lays eggs after it eats; in other words, it lays eggs directly on the host animal, a dog or cat. This is why, if you identify adult fleas on your animal, that’s just the beginning of the problem. Evidence of an adult flea more than likely represents the presence of flea eggs.

**The Danger of Fleas**

“Harmless as a flea” may be a common expression but, unfortunately, fleas are not entirely harmless. At the very least, a flea bite will cause an animal to scratch. Because one flea is just a sign of many fleas, animals typically get multiple flea bites, which causes even more scratching. If this scratching continues, the flea bites can become infected, and lead to a skin condition called dermatitis. Flea bites are considerably worse if the animal or human who has been bit is allergic to the flea’s saliva:

> “Flea Allergy Dermatitis (FAD) is an immunologic disease in which a hypersensitive state is produced in a host as a result of the injection of antigenic material from the salivary glands of fleas. The condition is found worldwide and is the most common dermatologic disease of dogs and a major cause of feline miliary dermatitis.”

In smaller sized animals such as puppies, and sometimes in young children, fleas can actually cause anemia. The host loses blood through the flea bites and excessive scratching and becomes anemic. Anemia is a serious condition if it remains untreated.

Another danger of fleas is their ability to carry disease. As mentioned earlier, fleas were known as the carriers of bubonic plague from infected rats to humans. Several species of fleas can be infected with tapeworms. The fleas cannot transmit tapeworms themselves; however, if an animal ingests a flea that is carrying tapeworm larvae, the animal could get tapeworms. This is quite possible, since animals often chew and lick flea bites and accidentally ingest fleas. Tapeworms are harmful to dogs and cats and must be treated quickly to prevent the animal from becoming ill.

Fleas are known to carry various other diseases. Transmission to domestic animals and humans is generally rare, but it is possible. For example, a disease called murine typhus was thought to be carried only by the Oriental rat flea, but it has also been found in the cat flea:

> “Murine typhus, caused by Rickettsia Typhi, is a febrile disease characterized by development of headaches, chills, and skin rashes, with infrequent involvement of the
kidneys and central nervous system. The disease occurs in humans and many small mammals, including rats and mice.”

**Flea Season**

If you see a lot of fleas, then you know it’s flea season. This is not as silly as it sounds – the fact is, flea season varies based on where you live. If your climate is generally warm and humid year round, then flea season is a year round occurrence. If warm weather is seasonal in your area, then you should be prepared to begin the fight against fleas right before warmer temperatures set in.

Fleas do not necessarily die off in cold, dry conditions – instead, there may be an extended delay in eggs hatching, larvae turning into pupae, or adults emerging from pupae. In effect, fleas are simply inactive in cooler temperatures – they’re just waiting for the right conditions and then they will appear.

If you become more aware of how your individual climate affects the flea life cycle, then you will know when you will need to spend more time on flea prevention, versus flea control and elimination.

**Chapter Extras**

What you should know about external parasites

American Veterinary Medical Association


Fleas (technical information)

University of Florida – Public Health Pesticide Applicator Training Manual

[http://entomology.ifas.ufl.edu/fasulo/vector/chapter_04.htm#three](http://entomology.ifas.ufl.edu/fasulo/vector/chapter_04.htm#three)
3 Basic Principles of Fighting Fleas Naturally

“Even good dogs have fleas.”
- Russian proverb

What Does “Naturally” Mean?

One of the primary objectives of this book is to convey information about methods and substances that fight fleas “naturally.” But it’s important to make note of the fact that “naturally” doesn’t always mean safe.

Here is an example. Natural substances include “essential oils,” which are botanical compounds in highly concentrated form. One of these essential oils, pennyroyal, has been proven effective in flea control. However, pennyroyal is toxic when applied to the skin of a dog or cat, and it can be deadly if ingested. Since animals commonly lick themselves when they have fleas, they could lick the pennyroyal with dire consequences. You might make the assumption that pennyroyal is safe because it is a “natural” oil. You would be dead wrong.

So don’t make the mistake of assuming that if a product or substance on the market uses the word “natural” that it is SAFE. Be sure to research whether or not the natural substances are in fact safe for pets and humans.

In this book, we will use the word “naturally” to refer to methods, techniques and substances that are natural in the sense that they are not artificial; however, we will make every effort to use the word natural without implying the substance or product it refers to is safe. We will always provide available information regarding the safety of a natural substance.

Pesticides are Toxic Chemicals

Millions of people own dogs and cats, and that means the potential for billions or trillions of fleas. That’s why flea prevention, control and treatment is a big business. There are countless products on the market. Some products are commonly available anywhere pet products are sold, while others are available only with a veterinarian’s prescription.

However, most commercially available pesticides have toxic chemicals in them.

According to the Natural Resources Defense Council (NRDC):

“Many Americans believe that commercially available pesticides, such as those found in pet products, are tightly regulated by the government. In fact, they are not. Many of the products sold in grocery, drug and pet supply stores, even when applied as instructed on the box, can cause serious health consequences to pets and humans.
FLEA CONTROL: How to Get Rid of Fleas Naturally

Just because these products are on store shelves does not mean they are safe." 4

The EPA did ban six types of organophosphates from the pet products market because they were found to be extremely harmful to pets and children. The banned substances are: chlorpyrifos, dichlorvos, phosmet, naled, diazinon, and malathion. One organophosphate has not yet been banned: tetrachlorvinphos (TCVP). **Be certain you avoid pet products with any of these ingredients.** Carbamates, another dangerous class of chemicals, should also be avoided.

The NRDC offers the following advice:

- **Products with the following chemicals should be avoided:**
  - Amitraz, fenoxy carb, propoxur, and tetrachlorvinphos (TCVP)

- **Products with the following chemicals should be used sparingly:**
  - Fipronil, imidaclorpid, metaflumizone, pyrethrins, selamectin

- **Products with the following chemicals are considered generally safer:**
  - Lufenuron, nitenpyram, pyriproxyfen, s-methoprene, spinosad

Pyrethrins, mentioned above in the “used sparingly” category, are found in many commonly available household products. Pyrethrins are naturally-occurring compounds derived from a flower, the chrysanthemum. Pyrethroids are synthetic substances similar to pyrethrins. Pyrethroids are widely used in pet shampoos, carpet cleaners, and insect repellents.

Note that cats are particularly sensitive to the adverse effects of pyrethrins and pyrethroids. If products with these ingredients are used on dogs with cats in the home, cats can still be exposed to toxicity.

According to the Center for Public Integrity, pyrethrins and pyrethroids “were created as safer alternatives to an earlier class of pesticides (organophosphates)…” However, says the Center, “pyrethrins and pyrethroids accounted for more incidents than any other class of pesticides over the last five years. EPA data shows at least 50 deaths attributed to this supposedly safer class of pesticides since 1992.” 5

Despite this danger, “the EPA does not require product warning labels cautioning consumers with allergies of the danger associated with pyrethrins and pyrethroids products. However, the Food and Drug Administration does require warning labels on shampoos that contain pyrethrins and pyrethroids.” 6

If you are planning to use ANY flea control product, it is advisable to **read the label** not just for warnings, but for a list of ingredients. The NRDC has a comprehensive list of products by

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“Many of the products sold in grocery, drug and pet supply stores, even when applied as instructed on the box, can cause serious health consequences to pets and humans.”

- National Resources Defense Council

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Flea Control: How to Get Rid of Fleas Naturally  http://www.fleacontrolbook.com
name and toxic ingredients on its “greenpaws.org” website.⁷

**Natural Approaches and Natural Substances**

When we discuss “natural approaches” in this book, we are referring to methods or techniques that do not generally require the use of toxic chemicals or other substances. We are also referring to approaches that ideally use the natural order of things to achieve flea control.

One of the issues with flea control today is that most of the commercial options available to the average consumer are, unfortunately, unsafe for humans, animals, or the environment. While products that are safer continue to come on the market, most of them are still, as of this book’s publication, hazardous in one way or another.

Our goal in this book is to endorse only those methods and techniques, and only those substances, which have been proven natural, safe, and effective. However, as you will learn, there is no single magic formula that is absolutely guaranteed to rid your home of fleas or keep your pet flea-free permanently. That’s the bad news. The good news is there are a number of approaches and natural, safe substances that will work. You may have to do some experimentation, though, to find the combination of things that work best in your situation.

It must be said that these approaches may require more commitment on your part. Generally, you must treat fleas as a “before, during, and after” problem. In other words, fleas can be a chronic problem, and as a result they must be treated continuously. You need to decide if you are willing to make the commitment, but if you purchased this book, that’s a commitment that should be easy for you. There will be many benefits to you:

- You will be using natural methods and therefore protecting yourself, your family, your pets, and the environment from toxic chemicals.
- You will develop your own flea control treatment plan that will be most effective for your climate, your pets, and your home.
- You will eliminate the need to use potential harmful and toxic chemical treatments on your pets and in your home.
- You will save money on expensive chemicals.
- You will be the envy of everyone else who has a flea problem – because you will have solved it!

As you’ll see when we get into the specific methods of prevention and treatment, all of the substances we mention are natural and for the most part safe. They include common ingredients such as salt, vinegar, herbs, and oils.

**Integrated Pest Management**

“Integrated Pest Management” (IPM) is a comprehensive strategy designed by agricultural experts so you can use safer methods to manage pest problems in your home. IPM applies to
all pests, but it is very relevant for flea control.

The Michigan State University Pesticide Education Program does an excellent job of explaining IPM: “By anticipating and preventing pest activity and combining several pest control methods, you can achieve long-term results.” ⁸

According to the university, here are the steps to follow for IPM:

1. Identify the pests.
2. Take away their water.
3. Take away their food.
4. Take away their hiding places.
5. Eliminate the existing population.
6. Deny entry into your home.

IPM supports eliminating pests primarily by trapping and biological control methods. IPM does permit the use of pesticides when other methods are not effective or practical.

The IPM strategy can be effectively applied to flea control, as demonstrated in the next chapter.
4 How to Fight Fleas Naturally In and Around Your House

“One does not burn a blanket to get rid of a flea.”
- Russian proverb

**Outside Prevention**

It’s a beautiful day and you’re out in the yard, enjoying the sunshine. Maybe you’re throwing the ball and your dog is happily chasing it. Life is wonderful and all is good.

Not so fast. See that tall grass or those shrubs where your dog is rooting around right now? Down at the bottom, where the soil is moist and warm, that’s where fleas could be. These little buggers thrive outside in warm, humid areas, so it’s likely they are lurking in your garden, and just as likely they’ll be attracted to that big warm giant known to them as a large canine with a yummy blood supply.

How do you reduce the occurrence of fleas outside your home?

**Five natural methods of outdoor flea control**

1. **Outdoor maintenance**
   
   Pay attention to where your pet spends most of his or her time outside your house. Many dogs have favorite spots where they like to lay. Take care to keep the grass and shrubs around these areas trimmed short and, to the extent possible, keep the surrounding area dry. Eliminate any warm, moist areas and expose them to sunlight if possible.

2. **Cedarwood and cedar oil**
   
   Cedar is a natural and effective flea repellent. Cedar wood chips, commonly available at garden stores, can be spread around the base of your home to potentially discourage fleas from entering. Cedar is also often used as a material in dog beds. Cedar oil is available for application to exterior and interior areas, and also for use directly on pets. Spray cedar oil around the outside foundation and entry points into your home. (More about cedar oil in the next chapter.)

3. **Natural herbs**
   
   **Tansy** is a perennial flowering herbaceous plant that is a naturally effective flea repellent. It has been used for centuries as a medicinal herb. Some people believe planting tansy near the home will help reduce the flea population; however, proceed with caution if you decide to pursue this approach. Tansy can be toxic to animals if ingested, and it may cause dermatitis in humans or animals with sensitive skin.

   **Fennel** is an herb believed by many to repel fleas. It can be grown outside in areas your pet frequents or put in your pet’s bedding. Various other herbs may be effective.
for treating your pet directly. We address them further in a subsequent chapter.

4. *Diatomaceous Earth*

Diatomaceous earth is a natural substance that is actually created from the remains of diatoms, microscopic water plants that are like algae. It contains such minerals as silicon, calcium, sodium, and magnesium. It has a consistency similar to talcum powder and is available at most garden suppliers. This is a remarkable substance that actually dries out the waxy outer layer of fleas so they dehydrate and eventually die. As an added benefit, diatomaceous earth can eliminate other insects. A hazard of diatomaceous earth is that its dust is dangerous to breathe for both humans and animals. Using it requires gloves and a dust mask. Be certain to read any cautions that come with the product and use it only as directed. Outside the home, spread it around the foundation and entry points. There are special precautions for using diatomaceous earth in the home. (See the next chapter.)

5. *Predatory Nematodes*

Predatory nematodes are microscopic naturally occurring organisms which attack the larvae of fleas and other insects, particularly grubs, found in the soil. These beneficial nematodes live in moist soil of at least 60 degrees in temperature and can be effective for weeks. Predatory nematodes are available in commercially packaged form from garden supply stores and online vendors. They are applied directly to soil either by adding them to vermiculite, or by spraying onto the soil. This is done in the late afternoon or early evening. The soil should be kept moist and temperate. Nematodes remain effective for about eight weeks.

Which of the above five methods you use is a personal choice, based on your environs, your preferences, and which method or methods you feel most comfortable with. You may find greater success by using several of these methods in combination. It will generally take some testing of one or more methods to determine which is the most effective and long-lasting for your particular situation.

**Inside Treatment**

**Inspecting Your Home**

Inspecting your home involves looking for fleas themselves, as well as their eggs, larvae, or pupae. One of the best ways to identify fleas on an animal is to look for “flea dirt,” which is tiny black/brown particles that are actually flea feces.

The most likely place you will discover fleas is in or near the sleeping area of your pet. We talk more about flea detection on pets in the next chapter. However, fleas are very mobile, so it will generally take some testing of one or more methods to determine which is the most effective and long lasting for your particular situation.
they could be in the carpet, floors cracks, on upholstered couches, and most anywhere.

Inside Treatment Regimen

It is a good idea to develop a regular inside treatment regimen – an on-going, periodic process of cleaning to minimize the potential for a flea infestation. It is likely you will never rid your home of fleas completely, but if you are conscientious about keeping up with the cleaning process, you will dramatically reduce the problem and keep it under control.

Here is a 3-part treatment regimen:

1. **Wash**
   For maximum protection, wash all pet bedding in hot soapy water on a weekly basis. Dry well before reuse. It will be more convenient if your pet sleeps on bedding that has a covering that can be easily removed and washed.

2. **Dust and Vacuum**
   Dust and vacuum thoroughly, especially anywhere your pet sleeps or lays, on a weekly basis, and more often if a flea infestation occurs. Vacuuming may not pick up larvae, which embed themselves in carpeting, but it does encourage adult fleas to emerge from pupae because of the vibrations and suction. It is advisable to dispose of any vacuum cleaner bags because larvae could still remain alive, even after vacuuming. Clean the vacuum cleaner before reusing.

3. **Dehumidify**
   For fleas to breed, they need humidity of at least 70 percent and temperatures of at least 70 degrees (21 degrees celsius). Run a dehumidifier in your home to keep the air drier and create an inhospitable condition for fleas to reproduce. Pay particular attention to warm, damp areas, such as the basement and crawl spaces.

How to Treat a Flea Infestation

Uh-oh. Despite your best efforts, you have fleas… lots of fleas. Now what do you do?

First, follow the above 3-part treatment regimen. Add it to these additional steps:

1. **Steam clean**
   In the case of a serious flea infestation, steam clean your carpet. Rent a steam cleaner or have it done professionally. Steam cleaning is likely to be more effective than vacuuming alone in removing fleas from carpets.
2. **Wash around windows and baseboards and floors**
   Wash all areas where fleas could enter the house, as well as floors, with hot, soapy water.

3. **Treat carpets and upholstery**
   Any place your dog frequents, fleas will be present. Carpets, rugs and upholstered furniture – and of course, your pet’s bedding – are especially vulnerable to infestation. In addition to vacuuming and steam cleaning, you might wish to try the following three methods of treatment:
   a. **Diatomaceous Earth**
      Referenced earlier for outdoor use, diatomaceous earth can also be used indoors. Spread it around windows, doorways, and baseboards and rub it into the carpet. If you use this method, always use gloves, a dust mask, and goggles, and leave the house for several hours after use. It is not safe to inhale this substance when any particles are floating in the air. Fish, birds, and animals should not be left in the house. When you return, vacuum thoroughly.
   b. **Refined salt**
      Obtain some highly refined salt (as finely ground as possible) and sprinkle it lightly but evenly over your carpet. Brush or rake it in. Leave this in your carpet for a day or two, then vacuum thoroughly. Be sure to check with the carpet manufacturer to find out if this is a safe treatment. As long as the salt does not affect the carpet, this treatment is safer than diatomaceous earth and boric acid.
   c. **Boric acid**
      Boric acid is a chemical, but it is generally non-toxic if used appropriately. It is found in a number of commercially-available products, such as Borax. Use the same technique as with refined salt; however, if you leave the boric acid on your carpet for longer than a day or so, it might damage the carpet. Check with the carpet manufacturer to make sure your carpet can withstand boric acid. Long-term, low-level exposure to boric acid can cause some health conditions in humans and pets, so this treatment should not be used frequently.

4. **Use a flea trap**
   Flea traps are commercially available but they may contain unnatural and harmful ingredients. You can easily make your own flea trap by filling a small pan with soapy water. If possible, suspend a light bulb six to twelve inches above the pan. The light tends to attract the fleas and they will die in the soapy water.

5. **Treat your home with cedar oil**
   In a serious flea infestation, many people are tempted to use flea bombs, foggers, or sprays. These can be dangerous because, more often than not, they contain a toxic or at least somewhat harmful chemical. This chemical is then dispersed and lands on
every surface within the sprayed area, creating a “blanket” of tiny particles that remain, even when you think it is safe to return to the area.

Our research has not revealed a natural, safe version of such a device. However, a natural and safe alternative seems to be cedar oil. Cedar oil can be applied without harm to most any surface via a sprayer. It can also be directly applied to your pet and to humans.

Cedar oil appears to be a natural, safe, effective flea repellent. Fleas do not like cedar, which is why it is often used in commercially available dog beds. Cedar is also used in closets and chests to prevent fleas and moths from attacking clothing.

Cedar oil is available in a number of commercial versions, including the brand names Best Yet and Natures Defender. We’ll talk more about cedar oil in the next chapter.

**Chapter Extras**

Using salt

http://www.youtube.com/watch?v=kHxplwdNA4I

Using diatomaceous earth

http://www.youtube.com/watch?v=XY2Rsa6bB1I

Natural flea control

http://www.youtube.com/watch?v=kNJ7PbeuvdY

Organically ridding the house and pet bedding of fleas

http://www.youtube.com/watch?v=VXdUUyOYI4
5 How to Fight Fleas Naturally On Your Pet

“The fatter the flea the leaner the dog.”
- German proverb

How Fleas Spread on Animals

Nature equipped fleas with incredible agility. Fleas can and do jump from surface to surface with ease, and their durable external skeletal structure prevents them from getting crushed even if they fall to the ground. In fact, a flea can jump about 130 times its own height. It is very common for fleas to jump from one animal to another. That’s why, if you have more than one dog, or a cat and a dog, it is highly likely that all of your pets will have fleas.

How do fleas get on a dog in the first place? Fleas naturally occur outside, and they have the ability to seek out warm-blooded animals (mammals) as their food source. If your dog is ever outside, it has a good chance of picking up fleas. It’s as simple as that. Fleas can find dogs in any climate, although they are less active in cool, dry weather.

What about cats? Well, the best way to prevent your cat from getting fleas it to keep it from going outside. But again, if you have dogs in the same house as cats, then the cats are likely to get fleas from the dogs.

Flea Detection

You can see fleas with the naked eye, but it is not easy. They are black to dark brown in color and about the size of a pinhead. They tend to burrow into a dog or cat’s fur, so they will be close to the skin’s surface. Sometimes the most obvious sign of fleas is your pet’s continuous scratching. If you watch where your pet is scratching, you may also be able to detect tiny red spots, which could be flea bites.

Scratching, however, can be caused by many other conditions not necessarily associated with fleas, so you need to find other ways to detect fleas.

The two best ways to detect fleas on your pet

1. **Flea comb**

   A flea comb, available at pet stores, is a special comb with teeth that are very close together. The comb catches the fleas as you comb your pet and makes it possible to detect fleas, since you will see them in the comb. Once you find fleas in the comb, kill them by putting them in soapy water (use a dish detergent for best results), or rinsing them down a drain.
2. **Flea dirt**

Remember, earlier we said fleas are good at two things – eating and reproducing. Well the eating causes pooping, and that’s called “flea dirt.”

Flea dirt appears on your pet as tiny black or brown specks no bigger than finely ground pepper. It is typically found in warm, moist areas – in your pet’s groin, lower abdomen, or ear canal, for example – but it can be anywhere. Flea dirt is actually flea feces composed almost entirely of digested blood. The easiest way to confirm that the specks are flea dirt is to take them off with tweezers and lay them on a moist paper towel. If they turn red, as in a blood stain, they are flea dirt. Flea dirt is a definite indication that your pet has fleas, so even if you don’t find any live fleas, take this as a sign that fleas are feasting on your dog or cat!

**Controlling Fleas from the Inside Out: Diet**

In many respects, what we know about how nutrition affects the health of humans also applies to dogs and cats. A good diet can keep your pet healthy in more ways than one. When dogs and cats are given the proper nutrition, they tend to have healthier coats and healthier skin. This is important in fighting fleas. Here’s why one vet thinks so:

“Dry, unhealthy skin causes itching, as well as more severe reactions to fleabites—the skin sometimes actually falls apart and bleeds. In such cases, the fleas have a picnic. They don’t have to work (that is, chew) to extract their measure of blood, and so appear in huge numbers. If this happens to your pet, it’s important to realize that the fleas didn't cause the skin ailments—they only worsened a previously existing situation. With this in mind, I’ve solved the flea and skin problems of numerous dogs and cats simply by improving their diets.”

It is advisable to consult your veterinarian to determine a diet that provides your pet with the best possible nutrition. In addition, ask your vet about dietary supplements that may improve the health of the skin.

Some dietary supplements are believed to be effective in naturally fighting fleas:

1. **Brewer’s Yeast**

Brewer’s yeast contains the b-complex vitamin, thiamin, which is thought to be particularly effective in warding off fleas; however, its effectiveness varies from one animal to another. Brewer’s yeast is available from pet supply sources and at health
flea stores and can be fed to both dogs and cats. Brewer’s yeast should be fed at least one month before flea season so it builds up in your pet’s system. Generally, you should administer about 25 mg for every 10 pounds of your pet’s weight, but read package directions. Some animals may be allergic to brewer’s yeast; in this case, you can substitute a rice-based b-vitamin complex, which you can usually find at a health food store.

2. **Vinegar**

Vinegar can be effective as a flea repellent for both internal and external use (see below). For internal use, add about five teaspoons of organic white vinegar to a gallon of water and provide your pet with this mixture as the source of all drinking water. Another type of vinegar thought to be effective is natural apple cider vinegar.

3. **Garlic**

Garlic is included here because some naturalists believe garlic wards off fleas; however, garlic is listed by the ASPCA as a substance that should be avoided. Garlic could be associated with destruction of blood cells, resulting in anemia. It would be wise to check with your veterinarian before administering garlic.

Certain dietary supplements can be used to keep the skin of a dog or cat healthy, which can help the dog fight off the effects of fleas. Supplements which include omega 3 and 6 oils are commonly used to improve skin health. Check with your veterinarian or an animal health foods source before administering such supplements.

**Controlling Fleas on the Outside**

Diet is important, and the dietary supplements mentioned above may work. But diet is a longer-term solution to a flea problem. The short-term and more effective immediate solution is to fight fleas topically – on the animal itself.

**Flea Comb**

Earlier we talked about the **flea comb** as a way to detect fleas. The flea comb is also a legitimate natural means of controlling fleas on the outside of your pet, but only if you use it diligently. Daily use of a flea comb is recommended to assure the most effective control. Any fleas found via combing should be killed in soapy water or washed down a drain immediately.

While using a flea comb will minimize the problem, typically a flea comb alone will not effectively control fleas. That’s because it is unlikely you will catch all of the fleas in the comb. Their larvae will still be present in carpets and on pet bedding, so more fleas will eventually appear.

**Flea Baths**

Flea baths, or “flea dips” as they are sometimes known, are baths that contain special flea-
killing ingredients. There are many commercially available products that claim to be “flea shampoos” but few of them contain natural, safe ingredients. When searching for a flea shampoo, look for such words as natural, organic, biodegradable, and non-toxic. Check the ingredients list and make sure it does not contain one of the toxic or harmful chemicals referenced earlier in this book.

In general, shampooing your pet’s coat in a warm bath that contains some form of soap will kill and remove the existing fleas on your pet’s body, either because of the soap or the fact that the fleas will drown in the water. (Fleas may have strong skeletons but they are not good swimmers!) You should use a soap formulated for use on animals’ skin, however, because their pH level is different from a human’s. Be sure the soap you use does not make matters worse by drying out or irritating your pet’s skin.

As with the flea comb, you should realize that the flea bath has addressed the immediate issue – adult fleas on your pet – but it does not completely solve the problem. Because fleas spend only about 15 percent of their lives as adults – the other 85 percent is in the development stage – combing or bathing does not do anything to kill off the non-adult fleas.

**Natural Preventatives**

The best natural strategy to prevent fleas from coming back after combing and bathing is to immediately treat your pet with a preventative. Again, you could choose a commercially available preventative, but it will very likely contain substances that are not natural and are toxic and hazardous.

Reasonable natural alternatives are natural oils and herbs. Here is a good rundown of natural oils and herbs that are safe vs. unsafe, according to the National Resources Defense Council:

> “Herbal or natural products that contain cedarwood, lemongrass, peppermint, rosemary and thyme are likely safer. Use herbal or natural products containing citrus, cinnamon, clove, d-limonene, geranium, tea tree, lavender, linalool, bay, eucalyptus, and rue oils sparingly because they can cause allergic reactions in people – and severe reactions in cats and dogs have been reported.”

These are some natural effective options:

1. **Cedar oil**

   Cedar oil was mentioned earlier as an effective substance that naturally repels fleas when it is applied to carpets, furniture, and other surfaces. Cedar oil can also safely be applied to your pet’s coat by taking 5 to 8 drops of pure cedar oil and mixing it into an ounce of water. Use hot water for better mixing and allow it to cool before spraying it on your pet. Generally, cedar oil is not harmful to animals and humans; some cedar oils are more toxic than others, however. The cedar oil that comes from Juniperus
Virginiania is said to be non-toxic, according to studies by Oregon State University. 11 Cedar oil has been used by the U.S. government to help control desert sand fleas in Iraq.

It should be noted that some pets (particularly ferrets but sometimes dogs and cats) can be sensitive to cedar oil. A rash or dermatitis may appear, most frequently seen on fleshy parts of the paws and skin around the eyes. The lesions can be painful so watch for this potential reaction if you choose to use cedar oil.

2. Herbal oils
   
   A number of herbal oils, sometimes called essential oils, may be effective as flea repellents. Sometimes they work and sometimes they don’t – and some of them may be toxic or irritating to your pet. So how do you know which to use?

   One expert, Dr. Cass Ingram, author of numerous books on natural medicines, “recommends a combination of oils of oregano, bay leaf, lavender and basil to kill fleas and repel ticks. ‘Oil of oregano applied topically burns the fleas out of the skin,’ he says. ‘Apply by adding a few drops of the oil to a cup of water and spray your pet.’ “ 12

   In addition to those mentioned above, other herbal oils that may be effective include peppermint, lemongrass, eucalyptus, clove, rosemary and neem oil, which is mentioned below. Pennyroyal oil, which is sometimes used, should be avoided because it can be harmful to pets.

   Because essential oils are concentrated, they should be used sparingly and with caution. Essential oils can occasionally cause allergic reactions. Cats are especially sensitive to some essential oils.

3. Citronella and citrus oils
   
   Citronella is a common ingredient in candles which repel insects. Citronella oil can also be used as a topically applied flea preventative; however, its fragrance may be caustic to both humans and animals. A more pleasant-smelling alternative is citrus oil. Citrus oils are generally less toxic than herbal oils.

   There are a variety of citrus oils, but some are more effective than others. For example, a natural substance called d-Limonene is an oil extracted from citrus rind. This substance is used in veterinary-grade flea shampoos on both dogs and cats, but should not be used on puppies or kittens younger than twelve weeks. It is known to be effective, but it can irritate the eyes and should not be swallowed.

   Linalool is a similar oil that can be extracted from citrus peel and pine wood. This, too, has some toxic qualities.

   A less toxic version of citrus oils is “lemon tea.” It can be made at home. Here is a way to do this:

   “To make such a rinse, slice one whole lemon and drop the slices—peeling and all—into a pint of very hot water. Allow the lemon water to steep overnight, then
remove the pulp by filtering or straining. Sponge the lemon rinse onto your pet's skin and allow it to air-dry (don't towel). This treatment is nontoxic and can be repeated daily.”

How to make your own natural flea collar

One of the more common flea prevention products on the market is the flea collar. The flea collar was often used before some of the newer topical treatments, such as Advantage and Frontline, became available, and flea collars still exist. Unfortunately, most flea collars are permeated with toxic chemicals.

But the concept of a flea collar is a good one, particularly for a cat, since most cats don’t like being bathed or sprayed. Essentially, with a flea collar, the animal carries around the protection.

Here is a recipe, from the Pesticide Action Network in the United Kingdom, for an all-natural flea collar that you can make with common ingredients.

Purchase an untreated soft collar that fits your pet. Soak the collar in a combination of the following until it absorbs the ingredients:

- ½ teaspoon alcohol
- 1 drop cedar oil
- 1 drop lavender
- 1 drop citronella
- 1 drop thyme oil

Mix with the contents of four garlic capsules

Allow the collar to dry after soaking. The effectiveness of the collar will last about one month.

Why not just use commercially available flea control products on my pet?

We’ve itemized and discussed a number of natural, safe substances in this chapter that can lead to effective flea control. It is difficult to recommend a single substance that works better than another; in fact, much of the research we’ve done suggests that several substances are often used in combination. For example, while cedar oil is thought to be highly effective by itself, it might be mixed with a lemon tea mixture to reduce the pungency of the cedar fragrance.

Mixing herbals, oils and other natural substances is not an exact science and some experimentation may be necessary to determine what is most effective in your environment and home, and on your pet.

Some people, after reading this, may think they would just be better off using a commercially available product instead – so let’s address this directly.
Below are several of the leading and most commonly used topically administered flea control products:

- Advantage/Advantage Plus
- Frontline/Frontline Plus
- K9 Advantix/K9 Advantix Plus
- Revolution

Now let’s take a look at what they each contain:

**Advantage and Advantage Plus** contain a chemical called imidacloprid. According to the Natural Resources Defense Council, imidacloprid is toxic to the nervous system of insects but may be toxic to the human nervous system as well.

**Frontline and Frontline Plus** contain a chemical called fipronil. According to the Natural Resources Defense Council, fipronil is a possible human carcinogen, it can be toxic to the human nervous system, and it is suspected of disrupting the endocrine system.

**K9 Advantix and K9 Advantix Plus** contain imidacloprid and permethrin. According to the Natural Resources Defense Council, permethrin is classified by the EPA as “likely to be carcinogenic to humans” and is suspected of disrupting the endocrine system. Permethrin is particularly toxic to cats.

**Revolution** contains a chemical called selamectin. According to the Natural Resources Defense Council, selamectin is relatively new, so not much information is available about toxicity. It appears to have very low toxicity, however.

You should discuss the potential effects of any of these products with your veterinarian, and weigh the positives and negatives against the use of the natural substances described above.

**Flea bites on your dog or cat**

You may not think a few flea bites amount to much, but they can be a source of your pet’s constant scratching. Some animals are allergic to flea saliva and can develop a skin condition called flea allergy dermatitis. Puppies and kittens can actually develop anemia from blood loss if they become infested with fleas.

Dogs and cats can scratch flea bites until they bleed and even become infected. This just makes it easier for fleas to get more blood from their victim, so it really is a vicious circle for an untreated animal.

One effective natural remedy for flea bites, which soothes and heals the flea bites themselves and helps prevent fleas from returning is neem oil. Neem oil is derived from a plant widely used by native Americans. Neem oil is safe for use directly on an animal’s skin, or it can be
diluted with water and mixed with vinegar as follows:

“Mix one ounce of pure neem oil with 2 or 3 ounces of organic white vinegar and 4 to 6 ounces of water. Before applying, hose your dog thoroughly with water. Shake the bottle well several times while applying the oil mixture on the entire body, including legs, feet, tail, etc. Then brush your dog to help disperse the neem oil further on fur and skin. Do not rinse off. Neem oil repels flea immediately and help heal hotspots and promote a healthy skin.”

If flea bites are severe or become infected, it is always a good idea to consult your veterinarian.

**Chapter Extras**

What You Should Know About Flea and Tick Products
Humane Society of the United States
[http://www.hsus.org/pets/pet_care/what_you_should_know_about_flea_and_tick_products/](http://www.hsus.org/pets/pet_care/what_you_should_know_about_flea_and_tick_products/)

Taking care of fleas and ticks on your pet
Environmental Protection Agency
[http://www.epa.gov/pesticides/factsheets/flea-tick.htm](http://www.epa.gov/pesticides/factsheets/flea-tick.htm)

Natural Flea Control by Christine Makowski, DVM

People Foods to Avoid Feeding Your Pets (lists garlic)
ASPCA

What Do Flea Bites Look Like?
[http://www.youtube.com/watch?v=B68-GgXSHtU](http://www.youtube.com/watch?v=B68-GgXSHtU)
6 How to Fight Fleas Naturally On Yourself

“A man thinks he amounts to a great deal but to a flea or a mosquito a human being is merely something good to eat.”

- Don Marquis, novelist-playwright-poet, 1878 – 1937

Why Fleas can be Harmful to Humans

The most common harm to humans caused by fleas is flea bites. Some species of fleas are known to carry diseases, such as tapeworm, murine typhus fever, and plague. These diseases tend to be more dangerous to animals. Humans are rarely affected by flea-borne diseases; however, if you have any symptoms other than scratching after receiving a flea bite, such as fever, nausea, or dizziness, you should seek medical attention immediately.

Flea Bites

The good news for you (but bad news for your pet) is that fleas prefer the blood of canines and felines to the blood of humans. If a dog or cat is not immediately available, however, the fleas will jump onto a human. After all, they need to eat.

For most humans, flea bites are an annoyance but do not lead to a serious health problem. Flea bites generally appear as a small red bump. It could be raised, and sometimes it is surrounded by a halo. Flea bites tend to occur on lower legs, particularly ankles, but they can occur anywhere. They will itch, similar to mosquito bites, and the effect could last for weeks. Typically there is no large welt, as may occur with mosquito bites. It is not unusual to get multiple flea bites in the same area.

Some humans may be allergic to flea saliva. Young children are particularly susceptible to an allergic reaction. Allergic reactions can lead to flea allergy dermatitis, which may appear on humans as a rash or inflammation. This is made even worse by scratching, which can result in additional irritation or infection of the bite area.

Natural Preventatives

Many of the natural preventatives mentioned in the previous chapter as safe for use on animals are also safe for use on humans. Cedar oil, herbal oils, citronella oil and citrus oils are all generally safe, although some of them could cause an allergic reaction in some humans. Citrus oils are probably the least toxic and most pleasant-smelling.
While you can apply such preventatives directly to your skin, the most effective way to prevent the recurrence of a flea infestation is to follow the advice in the previous chapters regarding treatment of your home’s exterior and interior, and treatment of your pet. If you are getting flea bites, then fleas are present in your home and on your pet. You need to prevent the problem at the point of origin.

**Natural Treatments**

Treating flea bites is similar to treating any insect bite. Cleanse the area with soap or antiseptic lotion. Use cool rather than warm water. Apply ice if the bites are hot or swollen.

Natural products such as aloe lotion will soothe flea bites. Severe itching may require applying a cream containing hydrocortisone. You may need to use an antihistamine medication if an allergic reaction is prolonged.

**Chapter Extras**

Flea Bites

MedicinePlus (National Institutes of Health)

7 How to Play a Role in Natural Flea Control

“We have a responsibility to look after our planet. It is our only home.”
- The Dalai Lama

Working with Your Vet

Rely on your veterinarian as your partner in protecting and maintaining the health of your pet. If your veterinarian recommends a product that you believe has a toxic substance, discuss the pros and cons in detail. If you feel more comfortable with natural alternatives, discuss this as well.

Experience with and knowledge of natural and alternative methods of flea control varies from one veterinarian to another. If a natural approach is important to you, you might want to actively seek out a veterinarian with an interest in and knowledge of holistic and alternative veterinary medicine.

Taking Action Against Toxic Pesticides

It will often take more work and more of a commitment on your part to use natural, non-toxic methods and substances to control fleas. You will have to experiment, combine things, and come up with a prevention and treatment plan that is most effective for your situation. Why would you do this? Because you want to avoid the potential danger of using hazardous, toxic pesticides on your pet and exposing yourself and your family to these substances.

The fact is toxic substances can sometimes be created more easily than natural substances. Admittedly, toxic substances are often very effective in controlling fleas and other unwanted insects. But it is important to know about the ingredients in pesticides and understand the potential health risks associated with them.

Remember that domestic animals are beloved by billions of people around the world, and the pet products industry is a multi-billion dollar industry. Pesticides and flea preventatives are part of that lucrative business.

Become an informed consumer about flea prevention and control products by referring to such organizations as:

- NRDC’s website for pet owners, http://www.greenpaws.org
- Environmental Protection Agency – http://www.epa.gov
The Center for Public Integrity – http://www.publicintegrity.org

Beyond Pesticides, the National Coalition Against the Misuse of Pesticides – http://www.beyondpesticides.org/

Responsibility for the Environment

We hope the information provided in this book will encourage you to seek natural, safe alternatives in the fight against fleas. One of the reasons we wrote this book is because we believe our environment is increasingly subjected to man-made toxic substances which pollute our air and water and have harmful effects on wildlife, plants, our pets, and ourselves. We believe it is the responsibility of each and every pet owner to seek out the least harmful ways to care for a dog or cat. We hope you share our concern for the environment and will always carefully evaluate any pesticide or other chemical product before using it on your pets or exposing yourself or your family.

Chapter Extras

Perils of the New Pesticides
The Center for Public Integrity
http://www.publicintegrity.org/projects/entry/452/

Natural Resources Defense Council GreenPaws site for pet owners
http://www.greenpaws.org
8 A “What If” Story: Fleas in the White House!

As this book was entering the final stages of production, a big news event in the United States was that President Obama and his family had just obtained a puppy – Bo, a Portuguese water dog. It raised an interesting scenario: What if the White House got fleas? Maybe it wouldn’t be a problem of national security, but it sure would be a nuisance. It might even be another big news event.

If the White House did get fleas, we fully expect the Obamas would want to use natural flea control, given their respect for the environment…

Out in the new White House garden, Michelle Obama and Malia, one of the Obama children, are applying predatory nematodes around the perimeter. Meanwhile, White House gardeners and caretakers are raking diatomaceous earth into the soil of the flower beds and spreading cedar chips near the entrances to the house.

Inside the White House, the housekeeping staff is thoroughly dusting and vacuuming every day, paying special attention to Bo’s sleeping area. Bo’s bedding has a removable cover, and one of the housekeepers washes it weekly. (Of course, Bo has a habit of jumping up on either Malia’s or Sasha’s bed most nights, so he rarely occupies his own bed.)

The president has taught Malia and Sasha how to detect fleas by using a flea comb, but it’s a challenge for them because of Bo’s curly hair; instead, Michelle helps the girls look for flea dirt on Bo’s tummy. Sure enough, Bo has some flea dirt, so even though Michelle can’t see the fleas, she knows they are around somewhere.

Michelle asks the housekeeping staff to get the carpets in the family’s personal living quarters steam cleaned, and to wash all surfaces down. She instructs them to brush refined salt into the carpet and vacuum it up after twenty-four hours. She sends a message to the White House chief of staff to be on the lookout for fleas in the Oval Office.

Meanwhile, the president, acutely aware of the need to limit the use of toxic chemicals, makes up some “lemon tea” in his spare time and applies it to Bo’s coat. He also sprays Bo periodically with a specially concocted mixture of essential oils from a recipe he learned from his grandmother while he lived in Hawaii. He asks the White House chef to make sure Bo is getting brewer’s yeast in his daily diet.

All these steps in combination appear to result in the reduction, if not the elimination, of fleas in the White House. Another crisis is averted by this multi-tasking president and his environmentally responsible family.
FLEA CONTROL: How to Get Rid of Fleas Naturally

9 Tool Kit

Notes

Getting to Know Your Enemy

1) University of Florida – Public Health Pesticide Applicator Training Manual
   http://entomology.ifas.ufl.edu/fasulo/vector/chapter_04.htm#three

2) “Integrated Flea Control: Flea Control for the 21st Century,” Michael W. Dryden, DVM, Ph.D., College of Veterinary Medicine, Kansas State University, and Alberto B. Broce, Ph. D., Professor of Entomology, Kansas State University

3) Same as # 2

Basic Principles of Fighting Fleas Naturally

4) Natural Resources Defense Council, Copyright September 2008
   http://www.greenpaws.org

5) The Center for Public Integrity, July 31, 2008
   http://www.publicintegrity.org/projects/entry/452/

6) Same as # 5

7) Natural Resources Defense Council, Green Paws product list
   http://www.greenpaws.org/products.php

8) Michigan State University Integrated Pest Management Program
   http://www.ipm.msu.edu/

How to Fight Fleas Naturally on Your Pet

9) “Natural Flea Control,” Christine Makowski, DVM
   http://www.all-pets-info.com/fleacontrl/Natural-Flea-Remedy.html

10) Natural Resources Defense Council, Copyright September 2008
    http://www.greenpaws.org

11) Oregon State University Toxicity studies on western juniper oil
    http://juniper.orst.edu/craig.pdf

12) “Natural Remedies for Dogs,”
FLEA CONTROL: How to Get Rid of Fleas Naturally

13) “Natural Flea Control,” Christine Makowski, DVM
   http://www.all-pets-info.com/fleacontrol/Natural-Flea-Remedy.html
14) Pesticide Action Network, UK
   http://www.pan-uk.org/Projects/Local/alt~dir/fleas.htm
15) Natural Resources Defense Council, Green Paws product list
   http://www.greenpaws.org/products.php
16) Same as # 15
17) Same as # 15
18) Same as # 15
19) Natural Flea Remedies for Dogs by Chris Byrne,

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What you should know about external parasites
American Veterinary Medical Association
http://www.avma.org/animal_health/brochures/external_parasites/external_parasites_brochure.asp
Fleas (technical information)
University of Florida – Public Health Pesticide Applicator Training Manual
http://entomology.ifas.ufl.edu/fasulo/vector/chapter_04.htm#three
Using salt
http://www.youtube.com/watch?v=kHxplwdNA4I
Using diatomaceous earth
http://www.youtube.com/watch?v=XY2Rsa6bB1I
Natural flea control
http://www.youtube.com/watch?v=kNJ7PbeuvdY
Organically ridding the house and pet bedding of fleas
http://www.youtube.com/watch?v=VXdUUUyOYI4
FLEA CONTROL: How to Get Rid of Fleas Naturally

What You Should Know About Flea and Tick Products
Humane Society of the United States
http://www.hsus.org/pets/pet_care/what_you_should_know_about_flea_and_tick_products/

Taking care of fleas and ticks on your pet
Environmental Protection Agency
http://www.epa.gov/pesticides/factsheets/flea-tick.htm

Natural Flea Control by Christine Makowski, DVM

People Foods to Avoid Feeding Your Pets (lists garlic)
ASPCA
http://www.aspca.org/pet-care/poison-control/people-foods.html

What Do Flea Bites Look Like?
http://www.youtube.com/watch?v=B68-GgXSHtU

Flea Bites
MedicinePlus (National Institutes of Health)
http://www.nlm.nih.gov/medlineplus/ency/article/001329.htm#symptoms

Perils of the New Pesticides
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Natural Resources Defense Council GreenPaws site for pet owners
http://www.greenpaws.org

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Page 7-flea life cycle – Center for Disease Control, flea eggs – Washington State University
Page 8 – flea larva – Washington State University, flea – Green Dog Pet Supply
Page 20 – flea comb – Drs. Foster and Smith
Page 21 – flea dirt – Cornell University
Page 28 – flea bites – University of Wisconsin, LaCrosse
Page 32 – Obama Family - AP Photo/Charles Dharapak/cbsnews.com
Toxic Chemical Checklist

Source: Natural Resources Defense Council

Use this checklist to determine toxic chemical ingredients in flea control products and other pesticides.

Check box if substance is present in product being evaluated

### BANNED SUBSTANCES – DO NOT USE!
- Chlorpyrifos
- Dichlorvos
- Phosmet
- Naled
- Diazinon
- Malathion

### AVOID
- Amitraz
- Fenoxycarb
- Propoxur
- Tetrachlorvinphos (TCVP)

### USE SPARINGLY
- Fipronil
- Imidacloprid
- Metaflumizone
- Pyrethrins
- Selamectin

### GENERALLY SAFER
- Lufenuron
- Nitenpyram
- Pyriproxyfen
- S-methoprene
- Spinosad
Outdoor Treatment Checklist

- Trim grass and shrubs around areas where your pet frequents
- Keep these areas dry and expose them to sunlight if possible
- Spread cedar wood chips around the base of your home
- Apply cedar oil to external foundation and entry points
- Consider planting herbs such as tansy and fennel. (Caution: tansy can be toxic to animals if ingested and may cause dermatitis in animals or humans with sensitive skin.)
- Spread diatomaceous earth near the foundation and entry points to your home
- Use predatory nematodes during flea season in your area to attack the larvae of fleas
### Natural Substances Checklist

Use this checklist to evaluate the effectiveness of natural substances in treating fleas on your pet. Observe cautions noted in this book.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Effective</th>
<th>Not Effective</th>
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<tbody>
<tr>
<td><strong>Dietary Supplements</strong></td>
<td></td>
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<tr>
<td>Brewer’s Yeast</td>
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<td><strong>Herbal Oils</strong></td>
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<td>Lemon Tea</td>
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### Monthly Calendar – Inside Treatment Regimen

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<th>Saturday</th>
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<tbody>
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<td>Wash pet</td>
<td>bedding</td>
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<td>Wash pet</td>
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## Monthly Calendar – Flea Infestation

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<th>Saturday</th>
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</thead>
<tbody>
<tr>
<td>Steam clean carpet</td>
<td>Wash windows, baseboards, floors</td>
<td>Treat carpets (diatomaceous earth, refined salt, or boric acid)</td>
<td>Treat surfaces with cedar oil</td>
<td>Set out flea traps</td>
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10 Acknowledgments

The author would like to thank:

- Jack Carrier III of The eTag LLC, the book’s publisher, whose vision and support made this book a reality.

- Laura Andersen, DVM, who thoroughly reviewed the manuscript and provided helpful input to make this book better.

- The Natural Resources Defense Council, whose website, greenpaws.org, is a valuable and comprehensive guide to products and substances for pet owners.
11 About the Author

Barry Silverstein

Barry is a professional writer and author of six books, three on marketing and three for small business managers. He is a frequent contributing writer to marketing websites, including Brandchannel.com, the world’s leading online branding forum. He has also written for DOG FANCY magazine.

Barry owns two dogs and is very active in the Asheville, North Carolina animal community. He and his wife continuously foster dogs and cats in their home. Barry is a volunteer marketing consultant and writer for the Asheville Humane Society. Barry also publishes an e-guide of services for dog owners in Asheville. He created and helped launch the Buncombe County (N.C.) “Save A Life Campaign,” a coordinated county-wide effort of animal rescue and welfare organizations to save the lives of healthy, adoptable animals by dramatically reducing the euthanasia rate.