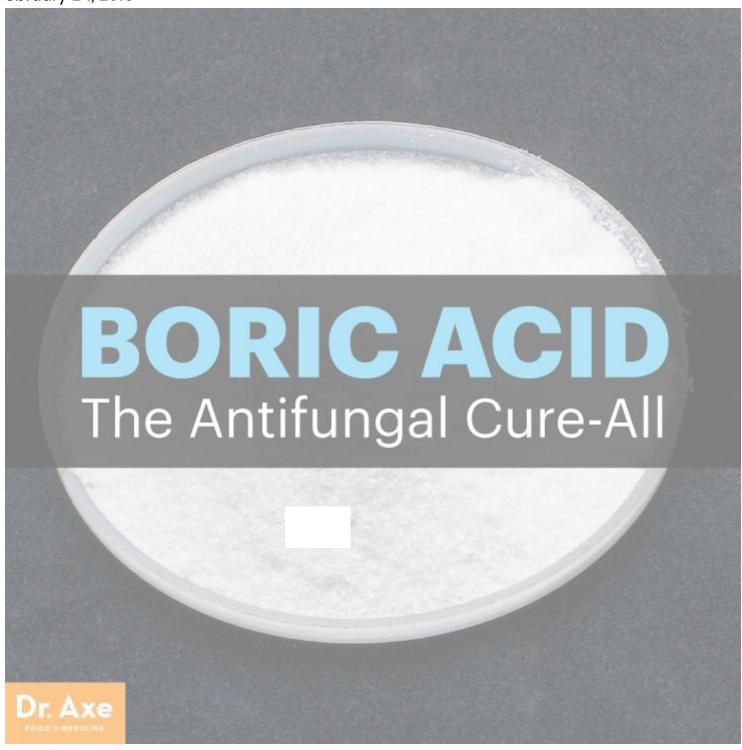
# Boric Acid: The Antifungal Cure-All

By <u>Annie Price, CHHC</u> February 24, 2016 cipes



It may sound like a dangerous chemical, but boric acid (BA), derived from **boron**, is actually an antifungal cure-all of sorts. How so? Well, BA is the key ingredient in a variety of effective and affordable home remedies for

some of the most common fungal infections, including athlete's foot and vaginal yeast infections. And that's not all.

Do you suffer from frequent eye irritations? An eyewash made at home with BA as the key ingredient can be used to cleanse and fight irritations and infections of the eye. Boric acid eyewash quickly provides soothing relief and helps remove pollutants from the eye.

You might have heard of boric acid being used as a natural pest control as well. It's true. People have been fighting cockroaches with BA for nearly a century. It's one of the most effective cockroach control agents ever developed, and it can be used as an alternative pest control for roaches and other unwanted invaders. The awesome thing is it's less toxic to humans and pets than other harsh chemical **pesticides**, **some of which have been linked to ADHD** and other conditions, and it also has several beneficial uses beyond getting rid of pests.

That said, it's still important to note that boric acid is linked to endocrine disruption, according to research outlined in Environmental Working

Group's Skin Deep Cosmetic Safety Database. So while it is likely OK for home remedies here and there, it's not something I'd expose myself to unnecessarily. (For instance, in **bath bombs** or other personal care products.)

# **Benefits of Boric Acid**

Boric acid has many health and household uses. Some of the top ways you can use boric acid include:

### 1. Yeast Infections

Can boric acid actually work as a natural and effective treatment for a <u>vaginal yeast infection</u>? It sure can. Some experts now recommend vaginal BA capsules as a treatment option for vaginal yeast infections, particularly infections that can't be cured by antifungal yeast infection medicines. (1) That's quite impressive.

For yeast infections, boric acid is used as a suppository before bed for one to two weeks. The CDC reports that this regimen has clinical and mycologic (branch of biology that deals with fungi) eradication rates of approximately 70 percent. (2) A study published in the journal *Diabetes Care* has even found that BA vaginal suppositories were more effective against **candida symptoms** in diabetic women than an oral azole medication. (3)

### 2. Roach Killer

Cockroaches can infest homes and restaurants. Not only are they unsightly and repulsive, but cockroaches can pose serious health risks to humans when they find their way indoors.

Cockroaches pick up germs on the spines of their legs as they crawl through decaying matter, which may be transferred to humans through food contamination, which can lead to illnesses such as <u>E. coli</u> and <u>salmonella</u>. In addition, cockroaches are linked to increased asthma and allergy attacks as their droppings, saliva and shedded skin contain potent allergens known to trigger allergic reactions and exacerbate asthma symptoms, especially in children.

Thankfully, boric acid is very effective when it comes to getting rid of cockroaches. These disgusting creepy crawlers succumb to BA simply by crawling over treated areas. The tiny particles of powder adhere to a cockroach's body and are ingested as the roach preens the powder from its legs and antennae. Some BA is also absorbed through the greasy outer

covering of the insect's body. All species of cockroaches are susceptible to boric acid provided the powder is applied in areas where the roaches live. (4)

Boric acid is also used to kill ants, fleas, termites, silverfish, beetles, wood borers and other parasites.

### 3. Eyewash

When it's heavily diluted with water, boric acid can be used to create an easy and effective eyewash. Whether it's a minor irritation or the more serious and contagious eye infection, a BA eyewash solution can help eye problems by treating any bacterial infection and soothing inflamed eyes. That includes relief of **pink eye symptoms**. (5)

In case you're doubting using BA in your eyes, even well-established eye washes list boric acid as one of the main ingredients. (6) To relieve symptoms of eye irritations and infections, a homemade boric acid eyewash can easily be made carefully at home.

### 4. Acne

Some people recommend boric acid for use in **home acne treatments**. It also appears as an ingredient in some topical products that treat acne and other skin issues. (7)

BA is naturally antibacterial, and since some acne is linked to bacteria (*Propionibacterium acnes*), it can help kill the bacteria causing breakouts. However, BA is not a foolproof acne remedy and can significantly irritate the skin. Many countries have actually outlawed its use in cosmetics. It also gets a very high (negative) score of 8 out of 10 for health concerns by the EWG. (8)

### 5. Athlete's Foot

Boric acid power can also treat fungal infections, such as <u>athlete's foot</u> and <u>toenail fungus</u>. Just a few sprinkles of the BA powder in your socks or stockings can help clear mild infections and ease the itching associated with athlete's foot. An added bonus: It can also neutralize the foot odor from athlete's foot, providing relief for <u>stinky feet</u>.

Why is BA effective at treating athlete's foot? The acid changes the pH of your skin and helps remove dead skin that feeds the fungus. BA is a seriously potent fungicide, and it often clears up athlete's foot in cases where **antifungal creams** have failed. (9)

#### 6. Household Cleaner

Boric acid can also be used around the house as a cleanser, deodorizer, stain remover, disinfectant and mold killer. You can add boric acid to your next load of laundry for more stain-fighting power. You can also use it to clean the toilet bowl with very minimal effort required — simply put it in and wait 30 minutes. (10)

### What Is Boric Acid?

What is boric acid? It's a white powder derived from boron and water that has antibiotic properties against both fungal and bacterial infections. The *Journal of Women's Health* has found that BA is a safe, alternative, economic option for women with recurrent and chronic symptoms of vaginal yeast infections when conventional treatment fails. (11)

Boric acid (H3BO3) is a white crystalline, oxygen-bearing acid of boron found in certain minerals and volcanic waters or hot springs. It's also called hydrogen borate, boracic acid, orthoboric acid and acidum boricum.

In 1948, it was first registered in the U.S. as an insecticide to control cockroaches, termites, fire ants, fleas, silverfish and many other insects. In combination with its use as an insecticide, BA also prevents and destroys existing wet and dry rot in timbers. It's also added to salt in the curing of cattle hides, calfskins and sheepskins. The addition of BA helps control bacteria development and insects. When it comes to agriculture, it's used to treat or prevent boron deficiencies in plants.

### Boric acid can be found in:

- Antiseptics and astringents
- Enamels and glazes
- Glass fiber manufacturing
- Medicated powders
- Skin lotions
- Some paints
- Some rodent and ant pesticides
- Photography chemicals
- Powders to kill roaches
- Some eyewash products

### **How to Use Boric Acid**

For yeast infections, you can make your own BA suppositories by filling size 0 **gelatin** capsules with BA. This equals approximately 600 milligrams of boric acid. The standard yeast infection treatment is one BA-filled capsule inserted in the vagina at bedtime for seven continuous days. For recurring

yeast infections, the standard yeast infection treatment just mentioned is done for two weeks, and then BA can be used twice a week for six months to one year.

To make a boric acid eyewash, you should use pharmaceutical grade boric acid powder. First, sterilize an eye cup or eyedropper. Next, mix 1/8 of a teaspoon of BA into one cup of cooled, sterilized water, making sure the acid dissolves completely. If using an eye cup, fill the cup and lower your eye onto it. Blink and roll your eye around several times. If using an eyedropper, squeeze the rubber bulb on the top of the dropper. Then dip the open end into the eyewash. Tip your head back and squeeze the bulb to release the fluid. Repeat several times. Repeat up to three times per day. Always make sure to sterilize your tools each time.

For athlete's foot, mix BA and <u>rubbing alcohol</u> in the following ratio: two teaspoons BA to one cup of rubbing alcohol or water. Apply to feet with cotton swabs. You can also put the dry powder into the ends of socks or stockings to treat or prevent athlete's foot.

To kill cockroaches and other unwanted pests, the key to success with BA is proper application. Kitchens and bathrooms are the most common areas to find cockroaches, although any area of a home may become infested if the infestation is bad enough. Cockroaches specifically prefer to live in cracks, crevices and secluded areas close to food, moisture and warmth.

For best results, the powder should be applied in a very thin layer barely visible to the naked eye around the area you think the cockroaches are originating from in your home. Key areas for treatment include under and behind the refrigerator, stove and dishwasher; into the opening where plumbing pipes enter walls; and into cracks along edges and corners inside cabinets and pantries. You want to keep children and pets away

from the areas where you apply the acid. Although BA is safer than chemical pesticides, it's still toxic to pets and children, especially if ingested.

To remove stains and odor from clothing, simply add half a cup of BA to your regular laundry load. You can also put half a cup of the acid into your toilet bowl and let it sit for 30 minutes. Not only does the BA remove stains, but it also removes unpleasant odor.

## **Boric Acid Recipes**

Some of the best boric acid recipes are definitely the ones for two common health problems: yeast infections and athlete's foot. Both of these fungal infections will head for the hills once you introduce BA into the picture.

### **Boric Acid Vaginal Yeast Infection Recipe**

#### **INGREDIENTS**

- 600 milligrams BA
- size 0 gelatin capsule

### **DIRECTIONS:**

1. Insert one BA-filled capsule inserted in the vagina at bedtime for seven continuous days.

### **Boric Acid Athlete's Foot Recipe**

#### **INGREDIENTS:**

- 2 teaspoons BA
- 1 cup of rubbing alcohol or water

#### **DIRECTIONS:**

- 1. Mix ingredients and apply to feet with cotton swabs.
- 2. You can also put the dry BA powder into the ends of socks or stockings to treat or prevent athlete's foot.

### **Boric Acid Precautions**

Boric acid should never be used internally by mouth, on open wounds or by children. Swallowing boric acid can be fatal. If swallowed, seek emergency medical attention.

For this reason, always keep boric acid out of the reach of children. The infant death rate from boric acid poisonings is high. However, poisoning is considerably rarer than in the past because the substance is no longer used as a disinfectant in nurseries. (12)

When boric acid is used in capsules as a vaginal suppository, skin irritation can sometimes occur. BA should not be used in any way if you are pregnant.

Don't use boric acid eyewash while wearing contact lenses, and wait at least 15 minutes after using boric acid eyewash before putting your contact lenses in. Don't use a boric acid eyewash if you have open wounds in or near the eyes. You should get medical help right away if you have any such wounds. Of course, you should also see a doctor if you experience any eye pain, changes in vision, continued redness or irritation of the eye after using a boric acid eyewash.

Never apply boric acid onto countertops or other exposed surfaces, especially those used to prepare food. If boric acid gets on your skin, remove it by washing the area thoroughly. If pure boric acid comes in contact with your eyes, wash them out with cool water for 15 minutes. If boric acid is accidentally swallowed, seek medical attention immediately.

### **Final Thoughts on Boric Acid**

When used properly and safely, boric acid can serve as an effective treatment for:

- Vaginal yeast infections
- Fungal infections like athlete's foot
- Eye irritations
- Eye infections
- Skin issues like acne
- Household pest control
- Indoor cleaning agent

Boric acid has proved itself to be a potent antifungal to humans as well as a destroyer of unwanted household pests. It's a strange combination of benefits, but then again, most natural remedies come with many surprising and unexpected capabilities.

It is important to note that boric acid is linked to endocrine disruption. So while it is likely OK for home remedies here and there, it's not something I'd expose myself to unnecessarily. (For instance, in personal care products.)

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