

How To Use Diatomaceous Earth

How To Use Diatomaceous Earth: A Complete Guide for Every Home and Garden

Diatomaceous earth (DE) is a naturally occurring, soft sedimentary rock that is crumbled into a fine, off-white powder. Composed of the fossilized remains of tiny aquatic organisms called diatoms, this remarkable substance has become a go-to solution for everything from pest control to natural beauty treatments. Its unique abrasive and absorbent properties make it incredibly versatile, but knowing how to use diatomaceous earth correctly is essential to get the best results while staying safe. In this comprehensive guide, we will explore the different types of DE, safety considerations, and step-by-step methods for dozens of practical applications around your home, garden, and even for personal care.

Understanding Diatomaceous Earth: Food Grade vs. Pool Grade

Before you begin using diatomaceous earth, it is crucial to understand that not all DE is created equal. The two main types are **food grade** and **pool grade**, and they serve very different purposes.

Food Grade Diatomaceous Earth

Food grade DE is the only type suitable for human consumption, pet care, and use in gardens. It contains a very low percentage of crystalline silica (typically less than 1%) and has been approved by the FDA as an anti-caking agent in animal feed and food products. When we talk about using diatomaceous earth for pest control around the house, for your pet's health, or as a dietary supplement, we are always referring to **food grade DE**.

Pool Grade Diatomaceous Earth

Pool grade DE undergoes a different manufacturing process that involves high heat and added chemicals, resulting in a much higher crystalline silica content (up to 60% or more). This type is used exclusively for filtration in swimming pools. It is **toxic** if inhaled or ingested and should never be used for pest control, gardening, or any application where people or animals come into contact with it.

Important: Always inspect the label. Only purchase DE that is clearly marked "Food Grade" for home use.

Safety Precautions When Using Diatomaceous Earth

Even food grade DE can be an irritant if mishandled. The microscopic diatoms have razor-sharp edges that can damage lung tissue if inhaled in large amounts. Follow these safety guidelines every time you use DE:

- **Wear a dust mask or respirator** – especially when applying dry DE indoors or in large areas.
- **Use safety goggles** to protect your eyes from airborne particles.
- **Keep DE away from children and pets while applying** – allow the dust to settle before letting them back into the area.
- **Avoid creating clouds of dust** – use a gentle applicator or a squeeze bottle for precise applications.
- **Wash hands thoroughly after use** – DE can be drying to the skin.

How To Use Diatomaceous Earth for Pest Control

The most popular use of DE is as a natural, non-toxic insecticide. When insects come into contact with the powder, it scratches their waxy exoskeleton and causes them to dehydrate and die. Here are detailed instructions for common pests.

Using DE Against Ants, Cockroaches, and Silverfish

1. **Locate entry points and trails** – Look for cracks in walls, gaps under doors, baseboards, and along window sills.
2. **Apply a thin layer of DE** using a bulb duster or a small squeeze bottle. A light dusting that you can barely see is more effective than a thick pile, because insects will avoid large mounds.
3. **Reapply after rain or cleaning** – DE loses its effectiveness when wet. In dry indoor areas, it can remain active for weeks.
4. **Use in crevices** – For hidden areas, puff DE into wall voids and behind appliances using a hand duster.

Pro tip: Mix DE with a small amount of powdered sugar to attract ants. The sugar draws them in, and the DE does the work.

How To Use Diatomaceous Earth for Bed Bugs

Bed bugs are notoriously difficult to eliminate. DE can be a valuable part of an integrated pest management plan:

- Remove all bedding and vacuum the mattress, box spring, and bed frame thoroughly.
- Using a fine brush or a dedicated duster, apply a very thin line of DE along the seams of the mattress, inside the box spring, and around the legs of the bed.

- Dust inside electrical outlets (remove the cover plate first) and along baseboards near the bed.
- Leave the powder in place for several days, then vacuum and reapply as needed.

Caution: Do not breathe the dust while applying. Wear a mask and keep the room well-ventilated.

Using DE for Garden Pests (Aphids, Slugs, and Worms)

In the garden, food grade DE is an excellent non-chemical defense:

1. **For soft-bodied insects like aphids** – dust the leaves of affected plants with a light coating. Best applied in early morning when dew is present, so the powder sticks. Reapply after rain.
2. **For slugs and snails** – create a barrier ring of DE around the base of plants. The sharp particles deter them from crossing.
3. **For soil pests** – mix a few tablespoons of DE into the top inch of soil to control fungus gnat larvae and other harmful soil inhabitants.

Remember that DE can also harm beneficial insects like bees. Avoid dusting open flowers where pollinators are active. Apply in the evening when bees are less active, and rinse the next morning if possible.

How To Use Diatomaceous Earth for Pets

Food grade DE is widely used by pet owners as a natural dewormer and flea controller. Always consult your veterinarian before starting any new health regimen for your animal.

Internal Use (Deworming)

For dogs and cats, the typical dosage is about 1 teaspoon per 10 pounds of body weight, mixed into wet food, once a day for a month. Follow the instructions on the packaging of your specific DE brand, as concentrations can vary.

- Start with a smaller dose to allow the pet to adjust.
- Monitor your pet for any digestive upset and stop use if symptoms occur.
- Ensure the animal has plenty of fresh water, as DE can absorb moisture.

External Use (Fleas, Ticks, and Lice)

1. Bathe and dry your pet completely.
2. Using a powder bottle or sock filled with DE, dust the animal's coat, avoiding the eyes, nose, and mouth.
3. Work the powder into the fur, focusing on the neck, back, and tail area.
4. Leave on for 30 minutes to an hour, then brush or rinse off. Do not leave DE on the pet for extended periods, as it can dry out the skin.

This treatment can be repeated every few days until the flea infestation is under control. Also apply DE to your pet's bedding, carpets, and upholstery (vacuum after 24 hours).

Household Applications of Diatomaceous Earth

Beyond bugs and pets, you can use DE for many cleaning and organizing tasks.

Natural Odor Absorber

DE's porous structure makes it excellent at trapping odors. To freshen up a musty closet, litter box area, or trash can:

- Place a small open bowl or a fabric sachet filled with DE in the space.
- Replace the DE every couple of weeks or when it becomes saturated.

Deodorizing Carpets and Rugs

1. Sprinkle food grade DE generously over the carpet.
2. Let it sit for several hours or overnight.
3. Vacuum thoroughly. The DE will absorb odors and moisture.

Note: Make sure your vacuum has a HEPA filter to trap the fine particles.

Silver Polishing

Mix a small amount of DE with water to make a paste. Rub gently onto tarnished silver or brass items, then rinse and buff dry. The mild abrasive action helps restore shine without harsh chemicals.

How To Use Diatomaceous Earth for Skin and Beauty

Food grade DE can be incorporated into DIY skincare routines because of its gentle exfoliating and absorbent properties.

How To Use Diatomaceous Earth

Facial Exfoliant Mask

1. Mix 1 part DE with 3 parts water (or aloe vera gel) to form a smooth paste.
2. Apply to clean, damp skin, avoiding the eye area.
3. Let it dry for 10–15 minutes, then rinse off with warm water using circular motions for light exfoliation.
4. Follow with a moisturizer. Use no more than twice a week.

Toothpaste Alternative

Some people use DE as a natural tooth powder. Simply wet your toothbrush, dip it into a small amount of DE, and brush gently. It acts as a mild abrasive to remove plaque and polish teeth. However, due to the abrasive nature, it is wise to use it sparingly and consult your dentist.

How To Use Diatomaceous Earth in the Garden and Compost

DE is not just for pest control in the garden. It can improve soil health and composting processes.

Soil Amendment

Mixing food grade DE into your potting soil can improve drainage and aeration. The diatoms hold moisture and slowly release trace minerals. Add about 1 cup of DE per cubic foot of soil and mix well.

Compost Enhancer

Sprinkle a small amount of DE into your compost pile every few layers. It helps absorb excess moisture, reduce odors, and deter fruit flies and other unwanted insects. Do not overdo it, as too much DE can slow down microbial activity.

Common Mistakes When Using Diatomaceous Earth

To make the most of your DE, avoid these pitfalls:

- **Using pool grade DE indoors.** It is toxic if inhaled and not effective for pest control.
- **Applying wet DE.** Once DE gets wet, it loses its abrasive sharpness and is useless until it dries completely. For pest control, always keep DE dry.
- **Applying too thickly.** Insects will simply walk around piles. A faint dusting is far more effective.
- **Neglecting to wear a mask.** Even food grade DE can irritate lungs. Always protect your breathing.

Conclusion

Learning how to use diatomaceous earth opens the door to a safer, more natural way of managing pests, caring for your home, and even supporting your health and beauty routine. Whether you