

Is Activated Charcoal Beneficial?

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STORY AT-A-GLANCE

- › Bread, cheese, ice cream and burgers are just a few of the charcoal-infused foods that are on trend right now, along with skincare products and toothpaste
- › Charcoal made from the fine black powder of bone char, coal, coconut shells and more is “activated” at high temperatures, altering its internal structure to carry surface-bound toxins from your body and dispose of them through bowel movements
- › Used for centuries, activated charcoal was called the “universal antidote” since the age of Hippocrates for such problems as anthrax, vertigo and absorbing odors from rotting flesh; today it’s used as a skin cleanser and more
- › Activated charcoal is a binder, helping to rid the body of toxins – from snake bite venom (possibly) to heavy metals implicated in leaky gut – and to optimize cholesterol, improve kidney function and even prevent hangovers

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The simple and quick answer to the titled query is a resounding yes, activated charcoal is beneficial. In fact, it might be one of the items to put into your emergency kit. While it might not be used as frequently as vitamin C, you could call it an "essential" item because it could literally save your life.

This remedy was one of a few natural medicinals, such as sulfur, doctors have long used for a variety of conditions. It's not simply charcoal, per se, created by burning wood

down to char and produced in the absence of oxygen. To produce activated carbon, aka activated charcoal, it's treated with oxygen. According to Difference Between:

"When charcoal is activated, it is processed in a way to increase the porosity. Because of this, activated carbon will have a large surface area, which can adsorb substances effectively.

*This primarily increases its effectiveness as a filter. Therefore, activated carbon is mainly used in water filters, in chemical purification process[ing] and in medicine. As we use them, the impurities tend to accumulate in the carbon surfaces. So the disadvantage of using this is that they become less effective as we use them."*¹

A fine black powder created by mixing bone char, peat, petroleum coke, coal, olive pits, sawdust or coconut shells, activated charcoal is "activated" when it's processed at extremely high temperatures, which changes its internal structure, reduces its pore size and expands its surface area.² It's not absorbed by your body, so it's free to carry surface-bound toxins from your body and dispose of them through **bowel movements**.

You may be familiar with charcoal as a filter for bottled water, in pollution control systems and even for whitening teeth. In pill and supplement containers you've probably seen tiny packets inside that say "Do not eat," often containing charcoal for the purpose of absorbing moisture.

How Did Charcoal Become So Trendy?

Black ice cream, black burgers and, looking like molten gunmetal, black breads, bagels and pizza crusts are coming into vogue all over the country. As The Guardian notes, "There is one key ingredient infusing these snacks with the hue of a teenage goth's bedroom wall – charcoal."³

Charcoal, according to Waitrose executive chef Jonathan Moore, has been emerging in a number of restaurants and pop-up eateries since 2016. But while it may be a bold move for up-and-coming chefs, The Guardian warns:

"That doesn't mean it's a good idea to nab a barbecue briquette from the shed and sprinkle it on your salad. Activated, food-grade charcoal is a modified form of the stuff, which means its surface area has been maximiz[ed] to make it more porous. It's popular in powdered or capsule form in many natural food stores, and is usually made from coconut shells or bamboo."

But a number of actress Gwyneth Paltrow's celebrated Goop products include charcoal, including a facial skincare mask, soap and cleanser, an infusion in toothbrush bristles and even several drinks, including chai and lemonade. In fact, several juice companies sell medical-grade charcoal-infused drinks designed to "cleanse, reload and rebalance the body."⁴

The 'Universal Antidote'

Once known as the "universal antidote," activated charcoal interested both Hippocrates and Pliny the Elder, circa 400 B.C. and 50 A.D, respectively, both of whom wrote about the health advantages of activated charcoal for myriad maladies, including anthrax, vertigo and absorbing odors from rotting flesh.

Activated charcoal supplements are often used today as a powerful natural treatment. In fact, I'd be willing to bet that every emergency room has them. One study called charcoal "the most frequently employed method of gastrointestinal decontamination in the developed world"⁵ Some of the uses of activated charcoal include:

Toxin binder	Hangover prevention ⁶
Tooth whitening	Reducing gas
Treating acne	May help optimize cholesterol levels
Elimination of fishy odor caused by trimethylaminuria (TMAU)	May promote kidney function

Emergency poison treatment; even snake bites, anecdotally⁷ **Water filtration**⁸

Leaky gut

Helps alleviate effects of toxic mold⁹

The Tie That Binds

Activated charcoal is an effective treatment for particular acute poisoning and overdoses, used since the early 1800s, as it's able to absorb certain toxins in the gut before they enter the bloodstream, even for animals; vets sometimes prescribe it when dogs have eaten substances like chocolate, which to them is poisonous. Even today, activated charcoal is used to treat **drug overdoses**, both prescribed and over-the-counter, such as aspirin, acetaminophen and sedatives.¹⁰

One study indicates that a single dose of 50 to 100 grams of activated charcoal taken within five minutes of drug ingestion may reduce drug absorption in adults by up to 74%.¹¹ Waiting 30 minutes reduces its effectiveness 50%, and cuts it down to 20% after three hours.¹²

But being a binder, especially in tandem with other detoxifying chelating agents, you must be very careful when you use it because it binds indiscriminately, wiping out beneficial minerals, as well as the benefits of other supplements and medications.

Studies also show activated charcoal is not effective in all cases of poisoning. For instance, it appears to have little effect on alcohol, heavy metal, iron, lithium and potassium or alkali poisonings.¹³ It's important to note that it needs to be considered for poisoning on a case-by-case basis.¹⁴

Dr. David Jockers, a corrective care chiropractor and nutritionist, notes that after a chemical explosion by the Songhua River in China in 2008, the drinking water for more than 10,000 people living in the city of Harbin was contaminated.

"Significant quantities of the toxic chemical benzene were released in which the Chinese government acted quickly to filter the toxin from the water with activated charcoal. Successfully, the activated charcoal cleaned the benzene out of the river and prevented fatalities from contaminated drinking water."¹⁵

Clinically Tested and Approved Activated Charcoal

Studies also show activated charcoal to bind urea and other toxins for eventual elimination.¹⁶ Further, activated charcoal supplements were shown to help patients with end-stage kidney disease to lower blood levels of urea and other waste products.¹⁷ A study published in the Journal of Medicine and Life notes:¹⁸

"Activated charcoal has been found to effectively eliminate waste products such as urea, indoxyl sulfate, and other urinary toxins, thereby improving dialysis. According to research on animal models of chronic renal disease, activated charcoal can decrease oxidative stress, inflammation, and the pace of renal disease progression."

The U.K.'s National Health Service (NHS) endorses charcoal tablets, sold over the counter, to treat severe flatulence, as it also absorbs gas in your digestive system. But get this – You can buy clothing containing activated charcoal, or charcoal pads you can place inside your clothing, that can "help absorb foul-smelling gas released during flatulence."¹⁹

Unpleasant odors come in many forms. One is a fish odor, which strikes people with a condition known as trimethylaminuria (TMAU), or fish odor syndrome, a genetic condition that activates a compound in your body called trimethylamine (TMA), reminiscent of rotting fish.

Those suffering from TMAU lack the enzyme for the conversion, causing TMA to accumulate in the body and cause the "fishy, foul-smelling" odor. That's where activated charcoal comes in, as it works to bind the toxins that cause the odors.²⁰ In optimizing cholesterol, activated charcoal binds bile acids in your gut to prevent absorption.²¹

Leaky gut, it turns out, is one of the symptoms and serious problems caused by heavy metal poisoning, often evidenced by weak digestion, bloating, food allergies, chronic fatigue and brain fog, Charcoal Remedies²² notes. One consequence many run into as a result is long-term **antibiotic use**, which disrupts bacterial balance, sometimes making candida, enterococcus and staphylococcus worsen.

What exacerbates leaky gut besides antibiotics in many cases is eating sugar, including too much fruit or fruit juices, and excess acid caused by chronic stress.²³ And for your immune system, your gut is very involved. This is another area where activated charcoal may prove to be useful. According to the Bulletproof Blog:

"Your ability to fight illness starts in your gut. Roughly 70% of your body's immune cells live in your intestines, and contact with your microbiome 'programs' your immune cells to behave in a certain way before they go out into circulation ...

Activated charcoal is [an] ancient and scientifically backed remedy. It's successful at absorbing endotoxins that cause gastrointestinal disease and removing toxins from processed, low-quality foods. Charcoal is a great go-to supplement if you are eating in a restaurant."²⁴

As in Many Natural Remedies, There's Skepticism and Sometimes Scams

Charcoal as an essential ingredient has been showing up with increased frequency in various beauty- and health-related products. A number of charcoal whitening products have hit the market, from charcoal coconut oil to charcoal powder, but British Dental Association scientific adviser Damien Walmsley, Ph.D., says there's no evidence to indicate that using charcoal on your teeth is a good idea, as it's an abrasive that could damage your tooth enamel.

There are certain bamboo charcoal facial masks that unfortunately make the entire market look bad, as they're dubiously purported to draw out impurities, but have a

reputation of peeling skin off. One reason may be that the real active ingredient involves PVA glue, known to peel the skin along with the impurities. However, charcoal facial sponges marketed by a wide array of online marketers get high marks as a gentle exfoliant.²⁵

In spite of its "miracle cure" status, Sarah Coe, nutrition scientist for the British Nutrition Foundation, notes, "There is no nutritional composition data available for activated charcoal so it's unknown whether it has any nutritional value."²⁶ Other experts say they're extremely hesitant in regard to recommending it as a supplement, saying that while it can absorb some substances in the gut, it's virtually useless for many applications:

*"It can indeed absorb some substances but not all, and it can only do that in the gut. It absorbs things that the body needs, for instance medications, which can lead to problems, of course. Foremost, it absorbs water from the gut, which can lead to dehydration and constipation."*²⁷

Goop's "Sex Dust," a \$30-a-pot herbal supplement, comes with a recipe for activated charcoal chai, along with a strong precaution that consumers avoid taking charcoal within two hours of taking any kind of medications, vitamins or supplements:

"Recreational charcoal use comes with some serious caveats. The issue is that while charcoal can certainly usher out not-so-great stuff, it can also bind to nutrients and meds, making them difficult to absorb."²⁸

Edzard Ernst, Ph.D., former Professor Emeritus at Peninsula Medical School, University of Exeter, and author of "Homeopathy: The Undiluted Facts," quips that claiming to balance mind and body via a process of deionization, as is sometimes claimed by marketers of charcoal products, is "nonsensical and misleading to the point of being dangerous," and in his view is an example of how neatly the commodity is able "to absorb the maximum of cash from gullible consumers."²⁹

That being said, it clearly has some beneficial uses. For instance, combining activated charcoal with **coconut oil** and adding it to bandages may help relieve bee stings or mosquito, fire ant or spider bites.

Other Activated Charcoal Applications

The European Scientific Institute (ESI)³⁰ notes that activated charcoal is useful in cases of:

- Acute overdose, such as the treatment of patients with chronic kidney disease to enhance the outcome of renal dialysis
- Protection for workers against vapors in working atmosphere through the use of charcoal cartridge
- Removal of heavy metals from environment, particularly water

Problems of different types have been associated with activated charcoal use. Never give it to someone who is not conscious as it could cause bowel blockages or holes.

"Black stool" or [constipation](#) are possible side effects.³¹

While activated charcoal may not be a miracle cure, it may provide a variety of benefits when used correctly. In general, when buying activated charcoal products, consider their source. Activated charcoal made from organically grown coconuts or wood is the best. Organic raw materials will yield purer and more adsorbent product. Avoid buying from charcoal vendors that do not specify the materials they used to make their products.

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