

# BLACK MAGIC?

**MEESHA HALM** EXPLORES THE HYPE AND  
HEALTH BENEFITS OF ACTIVATED CARBON.



# WHEN BURGER KING JAPAN RELEASED ITS HIGHLY PUBLICIZED "KURO" BURGER, FEATURING BLACK BUNS AND BLACK CHEESE MADE FROM BAMBOO CHARCOAL, IN 2012, IT WAS A NOVELTY FOR SURE.

But today, you can't flip through the pages of *Elle* or scroll through The Huffington Post without reading about the seemingly miraculous health benefits of activated charcoal. From cleansing pores and curing insomnia to eliminating gas and helping hangovers, charcoal remedies are being hailed as the next new panacea, capable of trapping and eliminating toxins, heavy metals, and other undesirables that have found their way into your body.

There's no better confirmation that charcoal is the new black than its latest incarnation as a star ingredient at megatrending juice bars such as New York's LuliTonix and Juice Generation and San Francisco's Project Juice. They're infusing activated charcoal powder made from coconut shells into their "Black Magic" lemonade to create Master Cleanse-inspired drinks purported to help hangovers and alkalize your body while you sleep.

Few would dispute the value of paying nine dollars to rid yourself of morning misery after a night of martini fun. But does it really work?

Activated charcoal is charcoal that's been heated or otherwise treated to increase its surface area and "adsorptive" powers; famously porous, it acts as a giant sponge that binds certain atoms and molecules to its surface. When sent through the gastrointestinal tract, it collects such elements and carries them out of the body when excreted.

Because of its ability to extract thousands of times its own weight, activated charcoal is considered a great agent for detoxing, cleansing, and healing intestinal issues. As such, it's been used for medicinal purposes for centuries and is still commonly employed in emergency rooms to treat various types of acute poisoning, toxicity, and drug

overdoses. But as Ali Bouzari, culinary scientist and co-founder of Pilot R+D, a lab in Northern California, points out, "Just because it's so effective in acute cases doesn't mean it should be used for chronic treatments."

Bouzari doesn't question the adsorptive powers of activated charcoal. It's common knowledge, and every chemical-lab spill kit contains some. The problem, he says, is that activated charcoal isn't a "pinpoint toxin missile" that removes all the unwanted elements from your body and leaves the good stuff. "It doesn't care what you call a toxin. It's going to adsorb to everything," including medicine, vitamins, flora, and glucose, which is why companies selling these products recommend they be consumed at least two hours before or after taking medications. Even so, "nutrition is more complex than rocket science," says Bouzari. No two bodies metabolize substances alike so it's impossible to say those guidelines are accurate. "To make bold blanket statements about the nutrition of a single food item for the general population is overreaching because there are too many variables to control."

Kristen Rasmussen, a registered dietician nutritionist and culinary nutrition and food sustainability consultant who teaches at UC Berkeley and the Culinary Institute of America, concurs there isn't enough conclusive empirical evidence backing up the health claims. Some studies suggest charcoal can help cholesterol, gas, and diarrhea; others don't. However, one claim Rasmussen can confidently debunk is charcoal as a hangover cure. Medical research shows that activated charcoal doesn't capture and expel ethyl alcohol. "If it doesn't help with alcohol poisoning, why would it help with hangovers?"

asks Rasmussen. Plus, by the time you experience a hangover, the alcohol is in your bloodstream, not your GI tract where charcoal works its magic.

Still, there are legitimate ways to use charcoal in the kitchen. Like Jack Daniels, which famously "charcoal-filters" its whiskey to remove lingering impurities and the taste of corn, Hiro Sone, chef-owner of Northern California's Michelin-starred restaurants Terra and Ame, employs it as a water filtration system. He learned about charcoal's purification powers from his auntie while growing up in Japan. She added bamboo charcoal to tap water to purify it for better-tasting coffee and to remove residual odors and milling-powder particles from her rice. (She said it also made it fluffier.) She also added it to her tempura-cooking oil to keep it cleaner longer.

It's using charcoal *as an ingredient* where things go dark; so far, its inclusion in food is largely for aesthetics. (Hello, BK Kuro burger.) But charcoal ash is another story. According to Bouzari, it's had useful culinary applications around the world since the discovery of fire, was man's first source of salt, and has high alkaline levels that act as an anti-microbial preserving agent and transform bitter foods into palate pleasers.

Rasmussen believes activated charcoal elixirs like LuliTonix and Project Juice's Black Magic lemonade may be good to jumpstart a healthy diet, but they're not the answer to all that ails us. To her, a proactive approach to GI wellness is a better plan than the "I just drank too much alcohol, so I'm going to drink some ash" strategy. She explains, "[Problems like] gas are a sign that your diet doesn't sit well with you. Pay attention to yourself and its cause. Try eliminating [the possible cause] to see if it makes a difference."

Bouzari agrees. "The media loves

to say 'this is a super food or this is a toxin.' In reality, neither really exists. It's a spectrum. Your body needs a certain quantity of heavy metals in order to survive. Every substance on earth is a potential toxin. Too much water will kill you."

Product developer Simone Powers, who designed Project Juice's Black Magic lemonade, acknowledges there isn't scientific evidence that activated charcoal binds to alcohol. But she's not convinced it's ineffective as a morning-after medicinal. A certified raw food chef who trained under plant-based-food pioneer Matthew Kenney of M.A.K.E. in Santa Monica, she says the charcoal in her lemonade supports her penchant for wholesome ingredients and whole food utilization; she already uses coconut water, coconut meat, and coconut oil for her products, so coconut charcoal brings everything full circle. She also says while the cayenne and alkaline water's hydrating properties definitely make the lemonade hangover-friendly, charcoal "may or may not help ... it's yet to be proven but we've heard positive feedback." At Project Juice, her seasonal elixir for spring will showcase nettles. Who knows? Dark green may be the next new black. ■

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