Call junk science by its rightful name: Fake news

We'll all be smarter, healthier and savvier if we dump unscientific buzzwords and health fads.

America's new obsession with detecting and correcting fake news is good for democracy. The future of our republic depends on a properly informed electorate.

Likewise, our health depends on us being properly informed about science. Therefore, we should extend the war on fake news to banish unscientific buzzwords and health fads. Here are 10 from my new book, <u>Little Black Book of Junk Science</u>:

Antioxidants and anti-aging products. Though it is not known why our bodies age, various hypotheses have been proposed. The most popular is the notion that, over time, <u>oxidative stress</u> (a byproduct of metabolism) damages the body's cells. In theory, antioxidants should help prevent that, but <u>clinical trials have failed</u>. The best way to "stay young" is through proper nutrition and exercise and to be genetically lucky. Most products are probably scams.

"Chemical-free" products. Everything is a chemical. Literally everything: the air you breathe, the water you drink, the newspaper you're holding in your hand. Nothing is "chemical-free." In popular culture, the word "chemical" is often used by activists who are ignorant of chemistry and toxicology to scare the public about their food and the environment.

Detoxing. Every day, we consume toxic substances. Most are naturally found in our environment. Rice contains arsenic, seafood has methylmercury, and our bodies produce toxic substances as a normal part of metabolism. But there is good news! Your body is perfectly capable of handling toxins. There is no need to "detox" or "cleanse" because your liver and kidneys have the job

covered.

Essential oils. Essential oils <u>acquired their name</u> because they contain the "essence" of the plant from which they are derived, not because they are essential to human nutrition. Like many plant extracts, essential oils may contain <u>useful compounds</u>, such as natural food preservatives and antimicrobials. Depending on the plant, they also might smell nice. Beware of (essential?) snake oil salesmen offering it as a cure for anything.

Gluten-free diets. Very few people have problems metabolizing gluten. A tiny percentage of people are allergic to it, and another tiny percentage have Celiac disease. Though some people might have non-Celiac gluten sensitivity, gluten-free diets are a fad. People who report improved health after going gluten-free probably feel better due to eliminating excess carbohydrates from their diets, such as FODMAPs.

"Natural is better." The widespread myth that "natural is better" underlies everything from alternative medicine to the organic food movement. It's the poster child for junk science. Smallpox, HIV, arsenic, poison ivy, rattlesnakes and scorpions are all natural, while many beneficial medicines are not.

Organic food. Organic food is a gigantic scam. Despite marketing claims, \$12 bananas aren't healthier, tastier, more nutritious or better for the environment. Organic farmers <u>also use pesticides</u>, though they are quite content letting the public believe otherwise. Because organic farming is inefficient, <u>we could not feed the world using it alone</u>.

Quinoa. Quinoa — otherwise known as "hippie porridge" — is a fad embraced by elites with more money than sense. Like other grains, quinoa is healthy, but there is nothing magical about it. Regardless, Western demand became so high that, for a while, poor Peruvians and Bolivians could barely afford to buy the grain their countrymen grew — <u>imported junk food was cheaper</u>.

Raw food. There is no reason to eat raw or unpasteurized dairy, juice, eggs or meat. We pasteurize and cook our food to kill dangerous microorganisms, some of which can be lethal. Junk science claims that pasteurization removes nutrients. In reality, the only thing pasteurization removes is a larger risk of illness.

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Turmeric. Turmeric is a spice used in certain foods. It is not a superfood (because no food is), despite claims that the active compound (curcumin) works miracles in arteries. Don't inject turmeric directly into your bloodstream because that will kill you, as one <u>woman found out</u>.

By dumping these and other buzzwords, our society will be smarter, healthier and more scientifically savvy. In a world in which alternative facts are gaining ground, it's past time to junk junk science.

<u>Alex Berezow</u>, Senior Fellow of Biomedical Science at the <u>American Council</u> on <u>Science and Health</u>, holds a Ph.D. in microbiology and is a member of USA TODAY's Board of Contributors. This article is adapted from his latest book, <u>Little Black Book of Junk Science</u>.

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