

Chapter 1 : BBC NEWS | Programmes | What's Really In Our Food

And so we process our foods adding flavours, preservatives and colours. In New Zealand, there are more than approved additives. Along with enhancing taste, they can make a food easier to use, that means no more gluggy or separated sauces or caking baking powder.

Did you know you are eating yoga mat ingredients in your fast food sandwich or Silly Putty in your French fries? Once or twice in a generation a brave citizen or scientist stands up to the status quo, tells the truth about what most of us would rather ignore. It changes everything about how we see the world, about the choices we make and how we live our lives. And sometimes it changes the world. In her new book, *The Food Babe Way*, she pulls back the veil on what we are really eating. And it will or should terrify you. Rachel Carson first alerted Americans to the dangers of pesticides and chemicals in our environment and helped launch the environmental movement. Linus Pauling, at great risk to his career, spoke about the dangers of war and nuclear radiation, and this led to the nuclear test ban treaty. And there are thousands of other souls in far corners of the world who are inspired to tell the truth at risk to themselves and their families. Most of them are unsung heroes who quietly stand up for what is right, and we are all better for it. Vani Hari is a modern-day David, facing the Goliath of the trillion-dollar food industry that in the guise of fun, colorful, hyper-tasty, easy to eat, convenient foods is creating suffering and sickness across the globe. Most of us are completely oblivious to what we are eating and its impact on our health and our world. We know little about how our food is grown; how our seeds are engineered; how our farming methods harm the soil, air, and water, and contribute to climate change and dead zones in our oceans. We are mostly unaware of the chemicals that are added to our foods; how the hormones, antibiotics, plastics, and toxins we eat in our everyday foods harm our bodies. How could we know that apart from the calories we eat, many of the chemicals in our food are obesogens, contributing to an obesity epidemic that is weighing down our nation and increasingly the world as we create the worst diet on the planet and export it to every other nation except Cuba and North Korea? How could we know that most of the 10, additives in our food supply have never been proven safe and are given a free pass by the Food and Drug Administration FDA? There are thousands of health revolutionaries working to change our food system. I consider myself one of them. But very few of us have figured out how to speak truth to power and slay Goliath, the food industry, or even make his knees buckle. The beauty and genius of the Food Babe is not simply that she rails against our toxic food system, or educates us about the dangers of industrial food in general. She goes after the Achilles heel, the one missing scale on the dragon, and shoots an arrow so true and straight, so deadly that it takes down food giants who otherwise merely laugh at critics, who ignore most of us calling for a change to the food system. Instead, the CEO and executives of Chipotle, Starbucks, Subway, and even Kraft invite her into their inner sanctum and take her advice on how to stop the lying, deception, and poisoning of our citizens. They fear her Food Babe Army, the millions of citizen activists who are sick and tired of being sick and tired. No, she goes deep into every aspect of our food system and through tireless, fearless, and stunning detective work uncovers nearly every toxin in our food system. She invites us to take a real look at our food, to read labels like an expert. She has uncovered all the dangerous ingredients in our food and teaches us how to avoid the growth hormones in meat, antibiotics, pesticides, refined and enriched flour, bisphenol A BPA, high fructose corn syrup, trans fats, artificial sweeteners, preservatives, artificial and natural flavors, food dyes, dough conditioners, carrageenan, monosodium glutamate MSG, heavy metals and neurotoxins, and more. She has vigorously investigated what we can eat, what products and foods give health and life rather than take it away. Her detective skills have uncovered an extraordinary, chemical-free, real-food way of eating that makes sense for everyone. It is the seed of a profound revolution, the type that Congressman Tim Ryan speaks of in *The Real Food Revolution*, a revolution that gets to the root of how our food system destroys our human and natural capital, our health, and our environment. I am an advocate for a new form of medicine, Functional Medicine, which addresses the root cause of disease; sees the body as an ecosystem, not a collection of parts; and treats the organism, not just organs, the system, not just the symptoms. One of the fundamental tools of healing is food. But the science of nutrition has uncovered a

radical new way of looking at food. Food is not just energy. It contains instructions that communicate messages to your genes, hormones, immune system, gut flora, in fact to every system of your body. This changes everything we know about food. Health results from the quality of information we put in our bodies. Antiquated industries and food systems would fall apart and new transformative food systems would arise. Not only would we all be healthier, but we would reverse the epidemic of chronic disease and obesity globally crippling our citizens, economies, and environment. And all that begins with one simple question that the Food Babe inspires us to ask, that she has fearlessly asked over and over. What is in our food? Is it good for us or bad for us? If it is food, we should eat it. That is the guiding principle of the Food Baby Way , a way to live that will lead us into a new era of health that will change the world one fork at a time, one bite at a time, one kitchen at a time, one person at a time. Read this book and you will never think about food, your health, or the world in the same way again. And we will all be better off for it. Wishing you health and happiness, Mark Hyman, MD. If you are looking for personalized medical support, we highly recommend contacting Dr.

Chapter 2 : BBC One - What's Really in Our Food?

The Food Babe Way book review: Breakthrough guide exposes harmful factory food ingredients that are still poisoning our children Top 10 cancer-causing food ingredients to avoid and why Synthetic biology is the new GMO - engineered food ingredients arriving this year.

Share on Pinterest Bacon contains high levels of sodium, which can lead to high blood pressure. And sodium is just the beginning. Saturated fat is linked to heart disease and obesity. Danger also lurks in virtually all store-bought bacon because of how many preservatives it contains, which are related to every health concern from headaches to cancer. Granola Bars Share on Pinterest Consider the granola bar, also known as the cereal bar. They are stuffed with hearty grains and packaged in boxes featuring mountains and sunrises. Avoid them for their high simple-carbohydrate count and the long ingredient list filled with difficult-to-pronounce words. Instant Ramen Share on Pinterest Most college students have had the experience of powering through finals week fueled only by ramen and cheap coffee. Do not continue this habit beyond your senior year. Better yet, stop now. That boosts blood pressure, which could lead to stroke. Additionally, with simple carbohydrates making up most of the other ingredients, ramen provides almost zero nutritional support. You should also check out the amount of fat in ramen noodles. Who knew so many unhealthy things could come in such a small package! As a healthy meal, instant ramen gets a failing grade. Dried Fruits Share on Pinterest You might reach for a handful of raisins or a few spears of dried mango to satisfy a sweet tooth. These dried fruits are a better option than Skittles, since they have a good amount of fiber, vitamins, and minerals. Be careful with the portion, however – even a small portion carries a high-calorie, high-sugar punch. The extra sugar also promises weight gain. Whether they are maple-flavored, soy sauce- and wasabi-dusted, or coated in toffee, flavored nuts are packed with extra salt and sugar. This extra salt and sugar can lead to weight gain, diabetes, and high blood pressure. Their sticky, sugary goodness also makes them the enemy of healthy teeth. Most varieties are packed with high fructose corn syrup and cane sugar – which could lead to weight gain, which can increase your risk for diabetes – and contain only a drop of actual fruit ingredients. Their extra sugar and gelatinous ingredients also stick to teeth, providing an ideal environment for bacteria to create cavities. Margarine Share on Pinterest There was a time when margarine was considered the healthy alternative to butter. However, the truth is that some margarine contains a lot of trans fats, which is considered more unhealthy than any other fat, including saturated fats. Trans fats increase bad cholesterol, which can lead to heart disease and stroke. Although the link between trans fatty acids and cancer is unclear, Johns Hopkins Medicine is just one institution that suggests lowering these fats as a part of their dietary recommendations for cancer patients and survivors. Perfluoroalkyls are just one class of chemical found in microwave popcorn bags. Studies have linked perfluoroalkyls with health problems as diverse as kidney disease and poor semen quality. While a little dollop of ketchup is fine, the amounts we slather onto our burgers and fries is problematic, as is the frequency. The tomatoes in ketchup are so diluted by sugar and salt that they offer no natural value. With most of the calories in ketchup coming from sugar, you might as well sprinkle your fries with sugar! Frozen Dinners Frozen dinners are the next best thing to takeout: However, frozen dinners are often loaded with sugars, fat, and sodium. Those additives can lead to weight and heart problems. They can also raise your blood pressure, putting you at danger for stroke. If you do get frozen meals, focus on organic meals with an ingredient list full of foods you recognize. They provide convenience and give us access to foods that would otherwise perish in transit. Enjoy them in moderation, and use your common sense. Be sure to make fresh, simple ingredients the focus of your diet.

Chapter 3 : What's Really in our Food? DVD R4 Brand New! | eBay

Yes, the food landscape is scarier than it used to be. But you're also more empowered to find information than ever before so you can make educated decisions about what you put in your body.

Content provided on this site is for entertainment or informational purposes only and should not be construed as medical or health, safety, legal or financial advice. [Click here for additional information.](#) But what about all the other things that make fast food not so much a food, but more of a science experiment? Until you look past that flaky exterior and further into the ingredient list. The other half includes corn derivatives, sugars, leavening agents, and completely synthetic ingredients. Caramel Coloring What it is: Unfortunately, these are not typically distinguished on the food label. Pet food Some offenders: Yellow 5 and 6 What it is: Yellow dye 5 tartrazine and 6 sunset yellow are artificial dyes used to color food and drinks. The UK also requires warning labels on foods containing yellow 5 or yellow 6. Soap, nail polish, temporary tattoos. Sodium Nitrate What it is: Sodium nitrite is a preservative and flavoring used in cured meats like bacon, ham, and hot dogs. Pharmaceuticals, dyes, pesticides Some offenders: MSG What it is: Sand What it is: Sand, or silicon dioxide or silica, is often used as an anti-caking agent in meat-based products like chili and processed beef. Wood Pulp What it is: Wood pulp, alternatively and quite preferably called cellulose, is used to thicken and stabilize foods. It also helps make up for lost fat and increases fiber content. Cellulose can also be listed on the label as microcrystalline cellulose MCC , carboxymethyl cellulose, or cellulose gum. Dimethylpolysiloxane What it is: Dimethylpolysiloxane is a type of silicone used in deep fryers to keep the oil from foaming, which helps the oil last longer. TBHQ What it is: TBHQ is used to prevent fats and oils from oxidizing, thus increasing their shelf life, not improving our health. Mechanically Separated Meat What it is: Mechanically separated meat MSM may be the least appealing thing to me on this list. No kind of meat should need an abbreviation or an explanation. Article Posted 5 years Ago [Share this article.](#)

Chapter 4 : 10 gross ingredients you didn't know were in your food | Life and style | The Guardian

The problem with fast food is the fact that it needs to be produced as cheaply as possible, as quickly as possible, with as much consistency as possible. It also needs to taste delicious, and keep you coming back for more.

Share via Email Arsenic – fancy a pint? Alamy Since the horsemeat scandal, more of us than ever before are holding a microscope up to what we eat. From human hair in our bread to fish bladder in our beer, there are a lot of additives and food processing techniques that employ ingredients and chemicals few would classify as "appetising". Arsenic Traces of arsenic in food are nothing new. The potent human carcinogen arsenic has been known to turn up in everything from rice to cereal to juice , and most recently German researchers found traces of it in beer , noting some levels found were more than twice than what is allowed in drinking water. Traces of arsenic can actually be found in both beers and wine that are clearer in colour. To filter, beer and winemakers use diatomaceous earth, a natural product that contains iron and metals ; hence the arsenic. Want less arsenic in your drink? Opt for drinks that are unfiltered. You can avoid L-Cysteine by buying fresh bread from a local baker, as it is not an additive in flour. Human hair – in bread? Fortunately, if you live in the European Union, propylene glycol is not cleared as a general-purpose food grade product or direct food additive. Isinglass is a gelatin-like substance produced from the swim bladder of a fish. Coal tar Many processed foods are known for including a long list of dyes, and many of those dyes are derived from coal tar. Yellow 5, also known as tartrazine, was linked to childhood hyperactivity in and since then any product in the EU that contains it must also come with a warning label. In the US, however, there is no such regulation. Concern over the food colouring recently prompted bloggers to petition Kraft to remove the dyes from their popular macaroni cheese product. Boiled beetle shells Natural Red 4 may sound harmless, but the food colouring – also known as carmine – is made by boiling female cochineal insect shells in ammonia or a sodium carbonate solution. It takes about 70, of the bugs to produce one pound of dye. The European Food Standards Authority recently included it as an additive to research more. But while some may feel queasy at the thought of consuming bugs, the synthetic alternatives to this natural dye, such as Red 2 and Red 40, are made from petroleum products. Rodent hair Producing food products in an industrial facility is nothing like cooking at home, and certainly a big warehouse space is sure to be home to a few rodents here and there. Borax Banned in the US and Canada as a food additive but allowed in the EU, borax is also known for making its way into fire-retardant, anti-fungal compounds and enamel. Any more for any more?

Chapter 5 : Food fraud: What's really in our food? (en) - Food & Feed Analysis

Title: What's Really in Our Food? () / Want to share IMDb's rating on your own site? Use the HTML below. You must be a registered user to use the IMDb.

Food fraud cases emerge again and again and consumers are increasingly concerned. Here are five food fraud facts you should know about. Food fraud comes in many shapes. Usually, the term food fraud refers to the deliberate adulteration of food for economic gain. More specifically, John Spink and Douglas Moyer from the Michigan State University have identified as many as seven distinct kinds of food fraud: A component of the finished product is fraudulent Tampering: Legitimate product and packaging are used in a fraudulent way Over-run: Legitimate product is made in excess of production agreements Theft: Legitimate product is stolen and passed off as legitimately procured Diversion: The sale or distribution of legitimate products outside of intended markets Simulation: Illegitimate product is designed to look like but not exactly copy the legitimate product Counterfeit: All aspects of the fraudulent product and packaging are fully replicated². Food fraud is widespread. Although there is no precise data available, several studies indicate that food fraud has increased over the past years. The main reasons for this are globalization and the associated complex food supply chains. Between November and February alone, more than 10, tons of food and over one million liters of beverages have been seized by Europol. The most frequently adulterated foods include fish, honey, olive oil, milk, spices, fruit juices, coffee, tea and meat. A lot of money is made with adulterated food. Food fraud is a lucrative business for criminals. According to a recently published statement of the president of the German Federal Office of Consumer Protection and Food Safety BVL, Helmut Tschiersky, experts estimate the profits from food fraud to be of a similar size to the proceeds of drug trafficking. Food fraud is hardly noticeable. Adulterated food is usually not apparent to the consumer – it does not differ from genuine products in terms of appearance or flavor. Regular food inspections by manufacturers and authorities are therefore essential to identify a possible fraud. Food fraud may be a risk for consumers. Usually, food fraud poses no risk to human health – in most cases, the only consequence is that the consumer pays the price for a high-quality product but only receives a low-quality product. However, food fraud may be life-threatening to allergic persons if unlabeled allergens get into the product – for example when a bag of chopped almonds is blended with peanuts. As we have already described here, the consequences may be dramatic. More information on food fraud. Do you want to learn more about food adulteration? At various events on food safety this year, food fraud is a major topic.

Chapter 6 : What's Really in Your Fast Food?

The packaging around our food protects the food and makes it look good, but sometimes it misleads us, and some plastic packaging contains potentially harmful chemicals that can pass into our food. Just about all of our food is packaged in man-made products - plastic, cardboard, glass, and metal cans.

By Chris Baraniuk 2 August In a university laboratory in Belfast, a student named Terry is holding an infrared sensor over a tiny dish of powdered oregano. This time the substance is a good match. The problem is not just that people are getting ripped off by having cheap dried leaves added to their packet of herbs. As a result, supply chains are getting more and more complex and more at risk of a type of criminal fraud in which cheap, often nasty substances are mixed in at some step of the process. The adulterators siphon off billions from the legitimate market. A few products were entirely horsemeat. The scandal rocked the British retail food industry. Elliott was commissioned by the government to produce a report. But while working on his report, Elliott became convinced that the people behind the horsemeat scandal were organised criminals hiding their activities in markets across Europe and scamming millions from innocent customers who ate their fraudulent products. Testing, testing In the main testing room, there are measuring instruments and little containers everywhere. Some of them are stored in pizza boxes for convenience. One machine vaporises samples at temperatures of 10, Kelvin approximately 9,C 17,F. It can perform hundreds of different tests at once. View image of The testing room is filled not only with expensive equipment To test the oregano, it all comes down to a type of chemical analysis called spectroscopy. The handheld approach that the student Terry is using is their latest innovation. The team hopes that it will one day be available to food inspectors, perhaps as a wirelessly connected device enabling an inspector to walk into any producer or supplier and instantly check to see if a foodstuff is what it is claimed to be. One method includes using biosensors with antibodies. If bonding occurs for one of these antibodies, then the tester knows that a particular contaminant is present Other tests can then determine if toxins are present in an adulterated foodstuff. One method includes using biosensors which employ antibodies the proteins in animal immune systems that bond with specific pathogens or toxins to neutralise them. If bonding occurs for one of these antibodies, then the tester knows that a particular contaminant is present. Nearly any kind of food may be laced with harmful chemicals. Industrial dyes are sometimes added to spices, for example, to give them a deeper colour. And since the price of milk is set by how much protein it contains, fraudsters will add another source of protein to their watered-down product like rice protein or even hydrolysed leather , which comes from the skins of animals. View image of The price of milk is set by how much protein it contains Even more dangerous substances might be added. Countries prone to hot weather, where the inside of a transport lorry might reach 40C, can be especially vulnerable, says Elliott. Depending on where and how rice is grown, for example, it may contain high levels of arsenic , a heavy metal that can increase the risk of cancer. One of the preservatives they like to add is formaldehyde. Formaldehyde is a deadly poison Elliott One lab technique used to detect heavy metals like this, and others such as lead or cadmium, is X-ray fluorescence imaging. When X-rays strike the sample, they cause electrons to separate from atoms. When this happens, photons with energies specific to the type of atom are also released. By measuring that energy, technicians can tell which elements are present. As with horsemeat, sometimes the food listed on a packet differs entirely from what is actually inside. One of the most frequently mislabelled foodstuffs is white filleted fish. But each fish is quite different in terms of price. Selling a cheaper fillet but marketing it as a more expensive one has sometimes tempted fish and chip shop owners as well as suppliers. View image of Would you be able to tell if this is haddock, cod, pollock or whiting? Elliott, though, has a new gadget up his sleeve that is helping to catch them out. Takats wanted a surgical instrument that would tell him when he was cutting through cancerous tissue or healthy tissue: The knife Takats developed is mounted with a laser, which vaporises molecules. The resulting smoke is sucked into a mass spectrometer for analysis. Electrons are fired at the smoke to disintegrate the molecules, allowing the machine to sort the atoms based on their charge, which is specific to each type. Suddenly it was possible to tell which was which in minutes, just by slicing through it gently. Because catching fish with nets contributes to

overfishing, to entangling other animals like dolphins and sea turtles, and even to damaging coral reefs and seafloor habitats in the case of bottom trawling , ethically-minded consumers often pay a premium to eat only line-caught specimens. But how can one tell which is which by the time the fish ends up in a shop? That, certainly, is the plan. The techniques developed by Elliott and his team provide a window into what actually goes on in our global, multifaceted food supply chain.

Chapter 7 : Why the FDA doesn't really know what's in your food | Center for Public Integrity

Imagine if waiters told you the truth about your dinner order. They'd probably start like this: "Hi, folks! Thanks for dining with us tonight! We've got some delicious specials for you.

This mature cheese flavouring is then heat-treated to halt enzymatic activity. Traditional cheddar is not considered truly mature until it has spent between nine and 24 months in the maturing room. A factory pantry looks nothing like yours. When the home cook decides to make a Bakewell tart, she or he puts together a lineup of familiar ingredients: The factory food technologist, on the other hand, approaches the tart from a totally different angle: How can we cut the amount of butter, yet boost that buttery flavour, while disguising the addition of cheaper fats? How many times can we reuse the pastry left over from each production run in subsequent ones? Which enzyme would keep the almond sponge layer moist for longer? What about coating the almond sponge layer with an invisible edible film that would keep the almonds crunchy for weeks? Could we substitute some starch for a proportion of the flour to give a more voluminously risen result? We all eat prepared foods made using state-of-the-art technology. Are we leaping to an unjustified conclusion when we lay a significant part of the blame for obesity, chronic disease and the dramatic rise in reported food allergies at the door of processed food? There are several grounds for examining this connection. Food manufacturers combine ingredients that do not occur in natural food, notably the trilogy of sugar, processed fat and salt, in their most quickly digested, highly refined, nutrient-depleted forms. The official line “that the chemicals involved pose no risk to human health when ingested in small quantities” is scarcely reassuring. Safe limits for consumption of these agents are based on statistical assumptions, often provided by companies who make the additives. Manufactured foods often contain chemicals with known toxic properties “although, again, we are reassured that, at low levels, this is not a cause for concern. Nor was he exposed to synthetic chemicals as we are now, in traffic fumes, in pesticides, in furnishings and much more. Real world levels of exposure to toxic chemicals are not what they were during the Renaissance. The processed food industry has an ignoble history of actively defending its use of controversial ingredients long after well-documented, subsequently validated, suspicions have been aired. If it did, then steering clear of manufactured products would be a lot easier. The pace of food engineering innovation means that more complex creations with ever more opaque modes of production are streaming on to the market every day. Just last month, a dossier for a new line of dairy proteins dropped into my mailbox. Alongside a photo of a rustic-looking, golden pan loaf, the explanation read: But I would prefer that my bread was browned solely from the application of heat. Not without a fight. What your food label really means Added vitamins One-dimensional factory versions of natural vitamins found in whole foods: Otherwise, they are made using the same highly chemical industrial processes, including extraction using harsh solvents. Accumulating evidence suggests that they may also increase our risk of Type 2 diabetes. Enzymes Used to make bread stay soft longer; injected into low-value livestock before slaughter, to tenderise their meat; and used in fruit juice processing to create a cloudier, more natural appearance. It adds bounce, increases the protein content on the nutrition label and, combined with water, is a substitute for meat. The same tank of treated water is often used for 8 hours at a time. They are made using the same physical, enzymatic, and microbiological processes.

Chapter 8 : BBC - Future - These toxins in our food almost certainly shouldn't be there

Is the food you eat fake? Here's the truth behind what's really in the food you eat every day SUBSCRIBE - New Vids Every Thurs: calendrierdelascience.com PL.

Consumers regularly eat foods with added flavors, preservatives and other ingredients that are secretly added by companies and not reviewed for safety by regulators. Companies may market additives that the Food and Drug Administration says could pose safety risks. Food safety decisions are often made by a small group of scientific experts repeatedly hired by companies or consultants with a financial incentive to market new ingredients. Several of these scientists have previously served as scientific consultants for tobacco companies. Rebecca Fattell was enjoying breakfast at a hotel in Berlin last summer when, after a few bites of a roll, her mouth started to itch, her gums started to hurt and before long, hives covered her skin. Hidden in the pastry, however, was lupin flour, which is made from a peanut-related legume that caused her reaction. In the United States, where lupin is less commonly used, there is no such requirement, leaving Fattell and others who suffer from peanut allergies vulnerable. Lupin is just one of thousands of ingredients companies have added to foods with little to no oversight from the FDA. The loophole is so big that companies can market additives, like lupin, that the FDA has found to pose dangers. Critics of the system say the biggest concern, however, is that companies regularly introduce new additives without ever informing the FDA. People are consuming foods with added flavors, preservatives and other ingredients that are not at all reviewed by regulators for immediate dangers or long-term health effects. The FDA said merely listing lupin on ingredient labels would not be enough warning. George Weston withdrew its applications and decided not to sell the additives in the United States, its parent company said in an email to the Center for Public Integrity. Other companies do market them, however. Lupin, also spelled lupine, can be found as an additive in products on supermarket shelves today with no warning for people who suffer from peanut allergies. They can then ask the FDA to review their evaluation "if they wish. Or they can take their ingredients straight to market, without ever informing the agency. Shortly after eating the burger, the year-old started having trouble breathing. He died in a hospital the next day. Many consumer groups and scientists, however, dispute that the additive should be deemed safe. Consumers have previously reported suffering a range of reactions after eating foods containing mycoprotein, including nausea and anaphylactic shock. Even GRAS additives that have been used in food for decades are now coming under fire as their uses expand and science doubting their safety emerges. For example, studies have found that carrageenan, widely used to provide a thick, creamy texture in foods like yogurt, ice cream and soy milk, can cause gastrointestinal inflammation in animals and humans. Researchers for the Pew Charitable Trusts and Natural Resources Defense Council say that allowing companies to make safety determinations without telling the FDA makes it nearly impossible to identify whether there are health effects caused by long-term exposure to certain ingredients. Several of these scientists, a Center for Public Integrity investigation found, previously served as scientific consultants for tobacco companies during the 1980s and 1990s, when the tobacco industry fought vigorously to defend its products. Several of these scientists previously served as consultants for tobacco companies. Americans were growing concerned about the increased use of preservatives and other additives in food, so Congress passed the Food Additives Amendment of 1954 and President Dwight Eisenhower signed the first law regulating ingredients added to food. To restore confidence, the law set up a system requiring companies to submit new ingredients to an extensive FDA safety review before going to market. So the law included an exemption to bypass the agency-led safety review process. They are added to everything from baked goods and breakfast cereals to energy bars and carbonated drinks. As a result, ingredient manufacturers have increasingly turned to the GRAS loophole as a quicker road to market. Meanwhile, industry scientists and lawyers contend that safety concerns are overblown and that major reforms designed to increase government oversight would cripple the resource-depleted FDA and stifle food innovation. Used to keep foods fresh for long periods of time, trans fats are commonly found in products including fried foods, cake mixes and microwave popcorn. The ingredient has been named by public health experts as a contributor to heart disease, stroke and Type 2 diabetes. Other additives have been deemed safe despite animal studies that have

linked them to cancer. The report criticized the fact that companies can deem new added ingredients to be "generally recognized as safe" without even telling the FDA, leaving the agency in the dark about many ingredients that end up in foods and beverages. Five years later, the agency has acted on just one of them. More than a month after receiving the questions, an FDA spokeswoman said the agency needs more time to answer. Pending The Center for Food Safety sued the FDA saying that operating under a proposal rather than a final rule meant that the agency is not bound by any time frame to review safety determinations. The FDA has since agreed to finalize the rule by August of . The agency has also been slow to respond to citizen petitions challenging the safety of some GRAS ingredients and potentially ignoring emerging science that questions their safety. The FDA encourages companies to choose the former option, but companies more often choose the latter. But the FDA says requiring this information is beyond its power. A company might privately conclude an ingredient is safe at a specific level in cereal. Another might do the same for its use in muffins. Ditto for a third company adding it to juices. A family sitting down to a breakfast of all three foods could end up consuming much more of the ingredient than each company had anticipated. While the FDA has long recognized the safety of caffeine at a certain level in cola-type beverages, companies have expanded that use to other products by making GRAS determinations on their own. In September , Bo Rupp, a year-old high school sophomore from Centreville, Virginia, drank two . Rupp acted paranoid, according to his mother, Karla, who drove home with one hand on the wheel and the other arm holding back her son from jumping out of the moving car. When they arrived home, Rupp ran out of the car to a busy highway where he reportedly sat down in the road. He was struck by a vehicle and airlifted to a nearby hospital. He died the next day. The loophole is so big that companies can market additives that the FDA has found to pose dangers. Instead, companies often withdraw their notifications when regulators indicate flaws with the submissions. In March , Senomyx, a San Diego-based biotechnology company, published a press release that appeared to suggest that the FDA had signed off on the safety of its new flavor, Sweetmyx S . That was news to the agency. Additive makers who want to supply their ingredients to big food companies – like General Mills, Kellogg and Kraft – have an incentive to go to the FDA for a safety review: It makes selling ingredients much easier. Spokesman Kris Charles said in a statement: They say companies often make GRAS determinations on their own – or through an industry trade association – as a way to protect proprietary information from competitors. After all, the FDA publishes information it receives when companies seek agency review, meaning competitors can steal ideas for using ingredients in new ways. A version of this story also appeared on NPR.

Chapter 9 : Whats Really in Our Food (TV Series –) - IMDb

A food can say "made with whole grain" or "rich in whole grain" even if whole grains aren't one of the main ingredients. It could have lots of refined grains, too, and just a sprinkling of whole.