The Power OF WAMP!

Read a chapter, cook a bit, and eat what you've made all over a three-day period, and *bam*! You're on your way to restoring your cravings for healthy foods. That's the CliffsNotes version of what this book asks of you. In the chapters that follow, we're going to be learning a lot about what we're eating, and we're going to start munching less on processed foods and more on what I call WAMP foods. It all begins with these two simple principles:

Processed Foods = Bad

Whole and Minimally Processed Foods (WAMP) = Good

WAMP is key to 3DR. It offers a bulletproof definition of healthy food—a definition that supersedes the terms "organic," "natural," and "local."

WAMP It Up

The idea that eating whole foods is good and processed foods is bad may seem self-evident, but it's not as obvious as you might think. In fact, pinpointing WAMP foods isn't simple. Processed foods can be sneaky and disguise themselves as healthy foods without our noticing.

For example, we all know that chips, fries, and doughnuts are processed junk-type foods—that's obvious. But what about bagels, cereal, and yogurt? Maybe not—it all depends on the ingredients that make them what they are. Most bagels are full of refined, processed wheat, and mainstream cereals are stuffed with processed sugar—they're certainly not WAMP foods. The fact is there isn't a standard, regulated definition of the words "whole" or "minimally processed." You'll need to learn what makes a food WAMP and what doesn't because labels on packages won't tell you.

Luckily, there are a few key attributes that flag a food as WAMP.

Direct From Mother Nature

Let's start by defining "whole foods." Whole foods are foods that come directly from Mother Nature, period. What this means is that these foods look pretty much the same whether you find them at a grocery store or on a farm. Whole foods, for the most part, come from the plant, animal, or fungi kingdoms. Carrots, whole chickens, mushrooms—they're all considered "whole."

Take cinnamon sticks, for example. They're bark, from plants, and we find them essentially as is, direct from nature. Same with coconuts, apples, lettuce, and hundreds of other foods. Once those foods are processed, though, they lose their nutrient power and goodness—they're no longer WAMP.

The key here is that whole foods are *unaltered* from the way you'd find them in the wild.

Minimally Touched by the Human Hand

With "minimally processed foods," a little common sense goes a long way. For example, minor alteration by the human hand is necessary for some whole foods to be stored, shipped, preserved, and consumed. Some fish are smoked to prevent them from going bad. Whole chickens are skinned, deboned, and fit into convenient packages for

✓ Whole Food	✓ Minimally Processed Food
Almonds	Unsweetened Almond Milk
Raw Cacao Pod	85% Cacao Dark Chocolate
Wheatberries	Whole-Wheat Pasta
Orange	Fresh-Squeezed Orange Juice
Whole Chicken	Skinned, Deboned, and Marinated Chicken Breast
Peanuts	Raw Peanut Butter

us to pick up from the supermarket. In the preparation of chocolate, cacao beans need to be extracted from the pods they came in, fermented, and dried prior to consumption. Butter needs to be made by humans from the milk of animals. Juice needs to be squeezed out of a fresh orange in a similar way to how olive oil needs to be extracted from the olive.

All of these are great examples of minimally processed foods. We don't find them as is in nature, but they're changed only in small ways for us to better consume them.

With just a little common sense and some thinking about the origins of foods, knowing what's minimally processed becomes simple. Above is a chart that helps show how we transform whole foods into minimally processed foods.

Keep It Real

Another key attribute of WAMP foods is their deep-rooted connection to the history of food, culture, and ancient ways of cooking and eating. WAMP foods tend to be key ingredients in authentic recipes of traditional cuisines. For example, when our ancestors made some of the very first breads, they did so with WAMP ingredients: whole-wheat kernels crushed using millstones (minimally processed), unrefined sea salt, wild yeast (sourdough starter, not baker's yeast), and water. Same with yogurt: A traditional food

Oranges and their fresh-squeezed juices are wonderfully WAMP

of the Balkans, it was likely made from the milk of pasture-raised animals (goat, sheep, or cows) and wild bacteria (not a manufactured strain as is the case today in most of the Dannons and Yoplaits). Even the first pizzas were likely made using minimally processed flours, fresh herbs, fresh cheese from pasture-fed animals, handmade olive oil, and tomato sauce—nothing like the kind of pizza pies we eat at Pizza Hut. WAMP ingredients and dishes tend to be those that have been around for the longest—through generations. They're old school.

Super WAMP

Okay, so you must be thinking at this point, *Why aren't we talking about "organic" or "non-GMO"*? If WAMP foods are organic, local, sustainable, or otherwise produced in a healthier way for us and the planet (i.e., without pesticides, without antibiotics, without genetic modification, etc.), they're superior—or what I like to call "Super WAMP." An organic banana is a better WAMP food than a conventionally grown banana. Sustainably grown rice is a better WAMP food than genetically modified rice.

WAMP Tip-Offs

- WAMP foods are usually perishable: They won't last too long on that top shelf in your pantry.
- WAMP foods usually don't come with ingredient labels. If they do, they'll likely have fewer than five ingredients.
- WAMP foods rarely have ad budgets. You'll never see a commercial or advertisement for them.
- WAMP foods don't have "natural flavor" in their ingredient lists.
- If, after some basic investigating, you can't figure out where the food you're eating came from, it's probably not WAMP!

Eat Super WAMP foods when you can, especially when choosing foods from animal origins. Remember, though, that a food labeled "organic" doesn't make it WAMP. Dough-nuts, table sugar, cookies, and potato chips can be "organic," but WAMP? Usually not.

The Science

Now we get to the part about why WAMP foods are the best foods for us, and why they're so "good." Science loves WAMP. Researchers agree that whole and minimally processed foods are more nutrient-dense than processed foods, and therefore healthier. WAMP foods contain more fiber, vitamins, minerals, phytochemicals, and so on—more of the disease- and cancer-fighting good stuff—than processed foods.

The case for WAMP foods is only getting stronger each year. Study after study reveals that these foods, especially plant-based WAMP foods, can help prevent certain cancers, diabetes, heart disease, and obesity.

The idea that the whole is better than the sum of its parts, a quality described as "synergy," takes WAMP foods to the major leagues. Scientists have realized that whole foods have a certain *je ne sais quoi* that foods made by humans don't, a characteristic that is best exemplified by what happens when you eat a whole carrot versus ingesting

"Natural" Doesn't Mean Much

Although the word "natural" seems honest and nurturing to most of us, truth be told, there is no official, regulated definition of the term. According to the FDA, the agency "has not developed a definition for use of the term natural or its derivatives."

However, in using the word "natural" to describe meat and poultry products, the USDA does regulate the term, requiring "these to be free of artificial colors, flavors, sweeteners, preservatives, and ingredients that do not occur naturally in the food. Natural meat and poultry must be minimally processed in a method that does not fundamentally alter the raw product. In addition, the label should explain the use of the term natural, e.g., "no artificial ingredients."

At the end of the day, the word "natural" doesn't guarantee us *anything* unless it's used to refer to meat and poultry products.

a pill that contains beta-carotene. You don't get the same benefits from the pill; eating the carrot is better.

Science has found that there's a special synergy among nutrients in whole foods that humans can't replicate. When we take a bite out of a carrot, hundreds of nutrients within that bite of carrot work together to ensure they function optimally—and provide us with the nourishment we're meant to have from that carrot.

It's for this same reason that taking fish-oil pills (a product of extracting and isolating oils from whole fish and then encapsulating them) doesn't give you as much benefit as eating fresh, whole fish; why drinking apple juice just isn't as healthy as munching on a whole apple; why enriched white bread isn't as nourishing as wheat berries.

The bottom line is that WAMP foods have a quality that trumps the duplicative powers of modern medicine and nutrition science. We know they're uniquely healthy, yet we can't figure out how. But we do know that WAMP foods are the true definition—the *par excellence*—of healthy food.

Common Sense

Common sense tells us there *must* be something good about whole and minimally processed foods too. WAMP foods have been nourishing our species, helping us survive and reproduce for millennia. Moreover, most WAMP foods have been around for thousands of years, whereas processed foods made their debut only in the last century. We're built to run on foods that didn't come from a lab or factory or off some conveyor belt.

Trusting Mother Nature seems smart. Sometimes, trusting our instincts and taking cues from human history can help us find the way, even when science can't give us all the answers.

The Flavor

Ready for the best news about WAMP? This food is t-a-s-t-y! And it's no wonder, since our species is biologically hardwired to find WAMP foods pleasurable. In fact, scientists have found that humans acquired a sense of taste to help them stay alive—edible, nourishing WAMP foods generally tasted sweet (signaling we may eat them) while poisonous foods tasted very bitter (signaling the opposite).

The sweet flavor of ripe summer strawberries is euphoric. Oysters are deliciously salty. Mushrooms have the perfect touch of umami. These kinds of foods give us incomparable pleasure. Composed of hundreds of flavor compounds with beautiful hues, tantalizing textures, and heavenly aromas, WAMP foods deliver on many levels. And in their freshest state (harvested at the peak of ripeness and used shortly thereafter), nothing can beat the multi-sensory experience we can obtain from them.

Similar to the special synergy in their nutrient value, WAMP foods are made up of complex combinations of chemicals that affect their taste and smell—combinations that humans have a hard time replicating as well. For example, the potent oils found in an orange peel contain a mind-boggling combination of over 200 chemicals alone. The distinct flavor of pure maple syrup cannot be reproduced, the science behind its flavor a secret of Mother Nature.

The fact that most WAMP foods originate from the earth's soil may also contribute to their spectacular flavor. Trace minerals, like chromium and manganese which transfer from the ground to plant foods like herbs and vegetables, are thought to impart intense flavor to these foods.

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WAMP foods hit all points in the spectrum of the five basic tastes: sweet, sour, salty, bitter, and umami. Pure honey and dried figs deliver sweet; fermented foods like yogurt allow for sour; minimally processed cheeses and other dairy products yield saltiness; greens like endive and escarole give us bitter; mushrooms and meat provide umami. WAMP foods hold all the flavors, textures, colors, and aromas we require to fall madly in love with them.

And when we combine WAMP foods with the art of simple cooking and ingredient mixing and matching—as we will do in the Resets that follow—*et voilà!* WAMP foods become unimaginably delectable, a dream come true for our taste buds! This is one of the main premises of this book: that healthy, whole-food meals have the potential to be unimaginably delicious.

WAMP vs. Diet Plans: No Contest

Over the last seventy years or so, hundreds of diet theories have come and gone with none of them accomplishing what they set out to do. For example, the seeds for the "low-fat, low-cholesterol" diet were sown back in the 1950s based on work done by a physiologist named Ancel Keys. Keys found that consuming high levels of fat leads to heart disease, a hypothesis first referred to as the "diet-heart hypothesis." By 1961, the American Heart Association had largely backed this work, which opened the door to the "low-fat" craze still somewhat active today. Yet despite all the decades of developing low-fat foods, Americans are still fat, and heart disease continues to be the leading cause of death in America.

The vegan diet—which is all the rage these days—isn't bulletproof either. Studies have shown that even when red meat is eliminated from the diet, you're still not "heart-attack proof."

The "low-carb" diet doesn't make any sense, as some of the most nutrient-dense foods on the planet are vegetables, fruits, and greens—all carbs.

And as far as the Atkins diet is concerned, plenty of renowned physicians have refuted its effectiveness, even going as far as calling it "disease promoting" and "clearly atherogenic" (promoting fatty plaque in the artery).

There's Nothing Natural About "Natural Flavoring"

Although we'd like to think of "natural" as wholesome and nourishing, unfortunately, when it comes to modern food marketing and flavoring, we can't. Although natural flavorings are made with ingredients derived from nature as opposed to synthetic ingredients, they're still made in high-tech laboratories by professional "flavorists" in white lab coats.

The FDA defines "natural flavoring" as "the essential oil, oleoresin, essence or extractive, protein hydrolysate, distillate, or any product of roasting, heating or enzymolysis, which contains the flavoring constituents derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, seafood, poultry, eggs, dairy products, or fermentation products thereof, whose significant function in food is flavoring rather than nutritional."

In other words, natural flavorings can come from things as obscure as "buchu leaves" and "angola weed." Moreover, if a natural flavoring reads as a "natural" strawberry flavoring, it doesn't mean that it came from a strawberry.

Staking a claim in the "best diet" arena is nothing short of a futile practice. Given the inability to scientifically control the hundreds of factors that play into our unique lifestyles and genetics, and the deep complexity of the human body, making a judgment call on which diet plan is perfect for the broad population is pretty much impossible.

Yet the one thing we do know is that foods in their least altered state—WAMP foods—are, hands down, better than processed foods, and when we start consuming these foods exclusively, we'll no doubt be a lot better off than we are now. It's just that simple. For many people, just the transition from processed to whole food can help reverse and stave off many ailments such as overweight, allergies, and chronic disease.

In this book what I'm claiming is that eating foods like these will give us our *best shot* at living a long, healthy, and happy life. By getting back to eating whole, traditional and ancient ingredients and foods, we'll make some serious strides with our health. And in this sense, eating WAMP foods is *indeed the best way to eat* for the vast majority of us.

A Closer Look at Processed Foods

Let's now turn our attention to processed food and why we shouldn't be eating it. Processed food is all food that's not WAMP. These days, 70 percent of our calories come from processed foods, most of which make up the 40,000 or so products you can find right now at your neighborhood supermarket.

Refined ingredients like white flour and corn syrup, and the foods they go into like canned soup and frozen dinners, are all processed. In fact, in 3DR I consider the terms "refined" and "processed" as interchangeable, as most refined foods require excessive alteration from their whole-food origins and most processed foods contain refined ingredients, particularly refined sugar, refined fat (i.e., oils), and refined salt, usually in combination. These substances are known to tempt our palates and lure us into eating more of them by loading them up with chemicals that tell our brains "this is good, eat me!" when we shouldn't and don't need to.

All artificial sweeteners are processed too—they're not found in nature. Processed foods are made in factories and laboratories and slapped with brand names from companies like Nestlé and Kraft. In fact, many of the same companies that make processed food are the same companies that make animal feed, dog food, and soap.

You can't make processed foods using grandma's recipe and your own two hands—they're foods that require serious engineering and high-tech genius.

Processed foods are also characterized by their use of additives. There are nearly 5,000 different kinds in our food supply—preservatives, colorings, flavorings, and fragrances. There are entire industries dedicated to creating fragrances and flavorings, from cinnamon to mint to lavender. Trained chemists known as "flavorists" at companies like Givaudan and International Flavors and Fragrances spend their entire careers in white lab coats engineering "artificial flavors" and "natural flavors" for companies like Coca-Cola and Unilever to use in their processed food and beverage products. Flavorists can make processed foods smell like chocolate without having anything to do with the cacao bean.

Ingredient lists of processed foods are uncannily unique, filled with items like guar gum, soybean oil, soy protein concentrate, natural flavoring, vitamin D2, riboflavin, and potassium chloride. There are so many strange sounding ingredients unique to processed foods that we could create a dictionary's worth.

The Work of Food Scientists

What's the function of processing? To make foods cheap; to make them taste a certain way; to make them easier to manufacture, ship, and store; to increase their shelf life (i.e., their expiration dates); to make them look better; to improve their texture; and, most importantly, to make them taste better because with all the dehydration, pasteurization, canning, irradiation, freezing, sterilization, and other feats of food-engineering wizardry that go into making processed food, their flavor is all but destroyed.

An entire field of work and study is dedicated to perfecting these functionalities. Food scientists garner degrees from prestigious institutions like Purdue University's Department of Food Science, where the food science curriculum is described as "an interdisciplinary field that applies the basic sciences, mathematics, and engineering to convert agricultural commodities into edible foods and beverages through various processing steps." These scientists spend their careers inventing new ways of improving processed foods and their ingredients at companies like Kellogg, Heinz, and Sara Lee. Food scientists have helped launch some of the most beloved processed-food brands in the history of the business, from Lunchables to Snackwells to Pop-Tarts.

Obviously, there are various grades of processed foods. For example, wheat. After wheat kernels are harvested, they're usually milled to make flour, which is then used to make breads and all sorts of baked goods. WAMP flour would be made from the simple grinding of wheat kernels by hand or stone mill. But a more highly processed flour might be made by removing the bran and germ of the wheat kernel ("refining") and then grinding or milling it mechanically at an industrialized mill—which would result in the same wheat flour we see today. This refined flour may then be used to make cookies for a brand-name company like Nabisco. The first flour required few steps, the second flour multiples more.

Flavorings

Flavorings, both natural and artificial, also play a role in food addiction. A *60 Minutes* exposé went behind the scenes of flavorings giant Givaudan in 2011 to find that flavorists there pride themselves on concocting flavorings that create cravings. So along with salt, sugar, and fat, flavorings in processed foods also boost their addictive qualities.

At right, we revisit our WAMP foods chart, except now we've added in an additional step where WAMP food is transformed into a processed food.

Processed foods don't contain the same amount of nutrients as WAMP foods—we know they're not as healthy. They don't contain as much fiber, minerals, or vitamins. And because they're devoid of that "synergy" quality that's inherent in whole foods, they can't deliver as much nourishment, even if they say "fortified" or "enriched."

Mother Nature didn't create processed foods—we did. And common sense tells us that because of this one simple fact, they're not perfectly designed for us. Another way to think about it is that, unlike WAMP foods, processed foods aren't vital to our survival. We can live quite happily—actually, extremely happily—without Cheerios, Eggo waffles, Red Bull, Tropicana Pure Premium, table sugar, and white flour.

Processed Food Is Addictive

Less than adequate in the health department, processed foods are bad in more ways than one. They do something very dangerous to our bodies—they exploit our biological weaknesses. By playing on our natural human susceptibilities, processed foods trick us into wanting to eat them even when we don't need to.

It works like this: If we backtrack some tens of thousands of years ago, our ancestors lived in a world that was characterized by scarcity. There wasn't enough food to go around—especially things like energy-boosting natural sugars (from fruits) and calorie-dense fats that were critical to our ability to survive and reproduce.

Living in this state in the natural world required signals to help us find these kinds

✓ Whole Food	✓ Minimally Processed Food	✗ Processed Food
Almonds	Unsweetened Almond Milk	Almond Joy Candy Bar
Raw Cacao Pod	85% Cacao Dark Chocolate	Chocolate Chip Muffin
Wheatberries	Whole-Wheat Pasta	White Bread
Orange	Fresh-Squeezed Orange Juice	Packaged Orange Fruit Drink
Whole Chicken	Homemade Chicken Soup	Frozen Chicken Tenders
Peanuts	Peanut Butter made of fresh peanuts and salt	Brand-name Peanut Butter with Additives and Preservatives

of foods. Since sugar and fat were hard to come by, they needed to stand out—and the way they did this was through their flavor. Both fruits and fatty foods (animal fat, animal milk, etc.) tasted delicious to our ancient ancestors (pleasing our palate was their signal), and thus they grew attracted to them. After all, if they didn't taste good, they'd have passed them up.

Over the course of thousands of years, these signals and have been imprinted into our neural circuitry through modifications to our genetic code. It's become automatic, hardwired inside us to want foods that are sweet, fatty, and even salty—especially foods that give us the most amount of each with the least amount of energy expended.

These days, our food environment looks shockingly different than it did 100,000 years ago. We no longer live in a world of food scarcity. Not only can we get our hands on fatty, sugary, and salty foods practically anytime of the day, we can get highly concentrated versions of them, thanks to the food-processing industry.

For example, we don't have to settle for the degree of pleasure derived from the *natural* sweetness found in an apple when we can get a supercharged version from the *concentrated* sweetness found in a candy bar made with highly refined table sugar.

We succumb to the candy bar because even though our food environment has evolved, we haven't. We're still wired to seek out the most pleasurable food with the least amount of work, no matter if it's less nourishing.

That's why we have a heck of a time freeing ourselves from the spell of frozen pasta dinners, caramel lattes, sodas, and french fries. These kinds of foods have been pinpointed as clinically "addictive," similar to drug addiction. Some psychologists now design programs to help treat what they refer to as "food addictions."

Processed Food Desensitizes Our Taste Buds

Processed foods are dangerous in a third, highly destructive way: They alter our taste buds, preventing them from finding WAMP food delicious. In other words, they change the sensitivity of our taste buds so we find less pleasure in healthy foods than we should.

The way it works makes perfect sense. Say your friend enjoys dessert, and almost every day she finishes dinner with a cookie. Now say she was forced to swap out her cookie for a piece of fruit, like a mango or a banana. Even though these fruits have some of the highest sugar content of all foods found in nature, she'd probably think they're not sweet enough in comparison to her regular cookie, and she wouldn't be as happy.

Now say we do a similar thing to another person who lives in a rural village somewhere in Thailand where access to processed cookies, and food in general, is limited. Say you gave this person the same pieces of mango or banana after dinner. He would likely find them very sweet—even blissfully sweet!

The difference in satisfaction can be attributed to the sensitivity of each person's taste buds. In enjoying the processed sweetness of cookies for so long, your friend had been unknowingly barraged with an extreme amount of sweetness that, over time, changed the sensitivity level of her taste buds, essentially dulling them. That's why, in taking a bite of the fruit, the sweetness didn't register. In order for her to find the pleasure she's after, she now needs very potent levels of sweetness, like those she gets from cookies that are made with refined sugar.

Whereas in the case of the villager, since he had never been exposed to processed food, his taste buds were never corrupted and remained normally sensitive. That's why he found the fruits extremely sweet and yummy. His taste buds could sense the natural sweetness.

A similar compromise occurs when we expose ourselves to salt. Given that most packaged, prepared, and frozen foods are doused with refined salt, we're unknowingly bombarding our taste buds with a level of saltiness that's not available to us in nature. The result: Over time, our taste buds lose their natural sensitivities to foods that are naturally salty (milk, meat, dairy), and we end up thinking that unsalted food tastes terrible.

Moreover, peer-reviewed scientific studies have found that the sensitivity of our taste buds is also influenced by the foods we choose to eat: We tend to enjoy the foods we're used to consuming (processed foods), and don't like the foods we're not used to consuming (WAMP foods).

> Processed foods threaten our healthy eating habits in a highly destructive way: They change the sensitivity of our taste buds so we find less pleasure in healthy foods from Mother Nature than we normally should.

Desensitization via processed foods has been discussed by many scientists who note that the more our culture becomes acclimated to processed, refined foods—foods that define the modern Western diet—the more eating WAMP foods becomes an unsatisfying, unexciting experience.

Now, let's get back to the simple principles we stated at the start of this chapter:

Processed Foods = Bad

Whole and Minimally Processed Foods (WAMP) = Good

The rationale behind this is now more than obvious. WAMP foods are healthier than processed foods, and full of fabulous flavor—they're "good." Processed foods are not as healthy and leave us addicted and our taste buds desensitized—they're "bad." If we eat more WAMP and less Processed we will restore our natural cravings for healthy food. Let's begin!