INTRO

PART 1

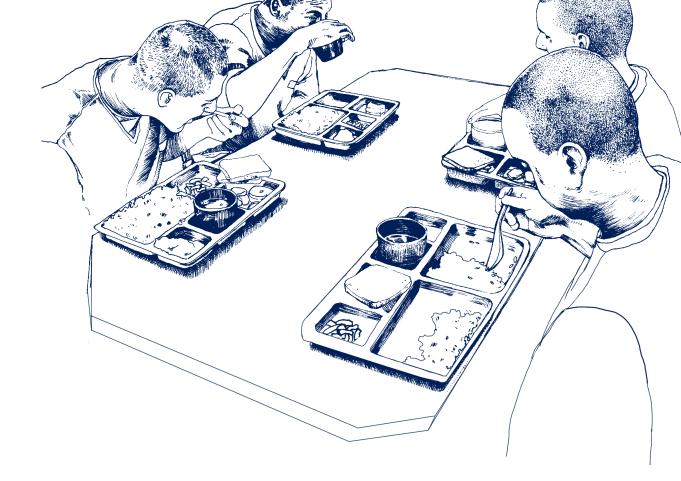
PART 2

PART 3

PART 4

PART 5

PART 6



PART 2

When Food Harms

"There are a lot of people who think, 'Oh, you're in prison, you don't deserve the best or to be comfortable.' But it isn't about the best or comfort, it's about providing the proper things that our body needs."

- formerly incarcerated person

Part 1 of *Eating Behind Bars* provides a vivid portrait of mealtime in prison as a daily degradation, characterized by food that is unappetizing at best. But even the somewhat better tasting meals served in prison barely meet people's minimum nutritional needs—something painfully obvious to the people who must eat these meals day after day.

In our surveys and interviews with formerly incarcerated people, the word most commonly used to describe prison food is "unhealthy." Other descriptors include "processed," "junk food," "non-nutritious," and even "malnourishing."

Incarcerated people are fed a diet that everyone else has been advised to avoid for decades. Nationwide, the prevailing trends are clear: prisons serve mostly carb-heavy meals high in salt and sugar, with few or no fresh fruits and vegetables and a scarcity of quality protein. Incarcerated people are fed a diet that everyone else has been advised to avoid for decades.

Carb loading

Virtually everyone we surveyed and interviewed describes meals in which a combination of breads, biscuits, rice, pasta, cake and cookies comprises the bulk of food on the tray. Carb loading begins at breakfast, according to Miguel, who described a typical morning meal at the West Coast facility where he was sent to serve time: "Sometimes they serve a giant slab of coffee cake as the breakfast entree. It must be like a thousand calories." Prisons in Washington State became notorious for the daily "breakfast boat," a carton containing dry cereal, sliced white bread, a bran bar, and a muffin—four different highly-processed grain products—along with jelly packets, but no fresh fruit and only a small amount of powdered milk and a packet of peanut butter for protein.¹

Breakfast is not the only meal abundant in empty calories; lunch and dinner are much the same. One might be served a four-by-four square of frozen pizza and a scoop of pasta in the same meal. "They tend to starve us on protein," Jonah told us regarding his time in a Northeastern prison. "They say it will be four ounces, but it's actually two ounces, because half of it is the breaded covering." Prior to 2007 in Ohio, trays featured four slices of bread per meal. "That's almost a loaf of bread per person per day! No one needs that!" insists Annette Chambers-Smith, the current Director of the Ohio Department of Corrections and Rehabilitation. This example (see "Today's Menu," below) from Idaho's state-wide prison system menu highlights the preponderance of carbohydrates.



Technically, any food that has been changed from its natural state is processed. Many forms of processing (e.g., cooking, freezing, chopping) do not negatively impact a food's nutrient profile.

Throughout this report, we use the colloquial terms "highly-processed" and "ultra-processed" to refer to food that has been refined to a point where its nutrients have been significantly compromised and the resulting product is likely to have a negative impact on health.

Today's menu

This example comes from Idaho's Department of Corrections state-wide menu

Source: Idaho Department of Corrections. IDOC food service menu 6.9 - Mainline. Link here

	🖺 BREAKFAST	₽ LUNCH	💍 DINNER
SUNDAY	Bran flakes, Biscuits, Country gravy, Hash browns, Sugar, Milk	Muffin or cereal bar, Sunflower seeds	Chicken patty, Noodles, Mixed veggies, Bread, Margarine, Iced choc. cake, Tomato sauce, Cheese
MONDAY	Oatmeal, PB pancakes, Syrup, Margarine, Sugar, Milk	Turkey salad, Bread, Tortilla chips, Cookie	Beef tacos, Lettuce/tomato/onion, Salsa, Cake or brownie, Beans
TUESDAY	Farina, French toast, Margarine, Sugar, Milk, Syrup	Peanut butter, Jelly, Bread, Veggie sticks, Potato chips	Scalloped potatoes/ham, Bread, Broccoli, Fruit crisp, Margarine
WEDNESDAY	Oatmeal, Coffee cake, Scrambled eggs, Sugar, Milk, Margarine	Ham salad, Bread, Tortilla chips, Bar cookie	Taco macaroni, Bread, Margarine, Green beans, Applesauce, Cake or brownie
THURSDAY	Farina, Pumpkin bread, Margarine, Sugar, Milk, No-pork sausage	Peanut butter, Jelly, Bread, Veggie sticks, Potato chips	Beef burrito, Corn, Salsa, Mexican rice, Pudding, Lettuce/tomato/onion, Banana
FRIDAY	Oatmeal, Banana pancakes, Sugar, Milk, Syrup, Margarine	Deli meat, Bread, Mayo/mustard, Tortilla chips, Cookie	Turkey ala king, Broccoli, Biscuits, Margarine, Fruit, Cake or brownie
SATURDAY	Bran flakes, Breakfast hash, Bread, Margarine, Sugar, Milk	Peanut butter, Jelly, Bread	Meatloaf, Parsley potato, Tossed salad, Vinaigrette, Bread, Margarine, Fruit, Iced cake

DAILY SNACK: Fresh Fruit

Our surveys and interviews with formerly incarcerated people, roughly half of whom were released from prison in the past five years, suggest a significant expansion of ultra-processed soy products added as filler to entrees described as meat (e.g., turkey casserole) or served instead of meat. While many vegetarians and others interested in decreasing meat consumption welcome these plant-based meat substitutes, people in prison don't get to choose whether to include soy products in their meals. In some facilities, the near-daily use of ultra-processed soy products without a protein alternative

leaves incarcerated people worried about the potential health effects of consuming so much soy, and they don't have access to updated scientific research to dispel rumors or make informed choices for themselves.

The surveys include numerous comments suggesting declining availability of fresh cow's milk, which many incarcerated people rely on to get their protein, calcium, and vitamin D. There are also complaints about the lack of plant-based substitutes for people who are lactose intolerant or who choose not to consume dairy for religious or ethical reasons.

A typical meal tray

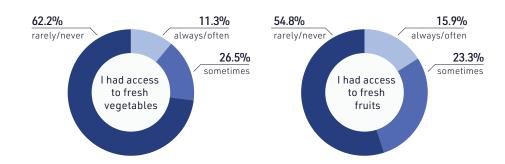
Prisons serve mainly carbheavy meals high in salt and sugar, with few or no fresh fruits and vegetables, and a scarcity of quality protein. See this meal listed as Friday's dinner on the Idaho statewide menu above.



A scarcity of fresh produce

Source: Impact Justice (2020).

70%
of survey respondents
reported breaking policy in
order to get access to more
or higher quality food



Nothing fresh or flavorful

Fresh vegetables and fruit, the essence of a healthy diet rich in both nutrients and fiber, are exceedingly rare in prison. Three-fifths of the formerly incarcerated people we surveyed responded that they "rarely or never" had access to fresh vegetables in prison (see "A scarcity of fresh produce," above). According to our investigation, incarcerated people are so desperate for anything fresh that those with access to the kitchen will steal even onions and peppers.

Canned vegetables, high in sodium and other preservatives, appear far more frequently than frozen vegetables, explain formerly incarcerated people who have worked in facility kitchens. Both are typically served "boiled beyond recognition," Theo described, which diminishes their taste and nutritional value. Although the occasional facility has a salad bar, they tend to be meager in their offerings: typically iceberg lettuce and a few lackluster accompaniments like shredded carrots and high-calorie dressings.

Fresh fruit is also extremely limited: Only one in six formerly incarcerated people we surveyed report that they "always" or "often" had access to it. Their comments indicate that when fresh fruit is available, it's mostly apples and the sporadic orange or banana, all three of which are often either unripe or turning rotten. The scarcity of fresh fruits and vegetables aligns with the fact that almost everyone surveyed said their meals were not nutritious.



† Photos obtained by *The Frontier* and taken with contraband cell phones show meals served in Oklahoma state prisons in 2020

Source: The Frontier

Because most prison meals are low in naturally-occurring essential vitamins and minerals, powdered fortified beverage mixes are routinely used to meet daily minimum nutritional requirements.² Health and nutrition professionals overwhelmingly argue that supplements cannot replace fresh, healthy food, which also contains fiber, antioxidants, and complex compounds that help the body better absorb the nutrients it needs. In addition, comments by formerly incarcerated people suggest these artificial fruit-flavored drinks have a chemical taste so unpleasant that many people do not drink them, so those people are getting even fewer essential nutrients in their daily diet. Others expressed concern about the sugar or artificial sweeteners and dyes in these fortified beverages.

It's important to emphasize that providing the recommended minimum amount and type of nutrients is not adequate for everyone or under all conditions. Depending on body size, age, gender, activity level, and personal health concerns, people need different levels of essential nutrients. We heard from very active people who were worried about getting enough protein, for example, along with older women who were troubled by lack of access to foods rich in calcium, and younger women who were anxious about iron intake. Also, for people in prison, it's often not possible to adjust one's diet if, for instance, an individual feels a cold coming on and wants to consume more foods with vitamin C. Additionally, just because the ingredients of a meal meet the minimum requirements, that doesn't mean the meal itself does. Nutrients (such as vitamins B and C) can be significantly depleted in the process of cooking, storing, and reheating food.

Given that food in prison has so little intrinsic flavor, it's not surprising that many people describe it as excessively salty or sweet—sometimes the only discernible tastes. Independent analyses of prison meals echo their comments. In 2016, the food administrator for the California Department of Corrections and Rehabilitation admitted the sodium content of general population meals averaged 3,500 milligrams per day, far

exceeding the limit of 2,300 milligrams under the USDA's 2015-2020 Dietary Guidelines for Americans.³ An older but independent nutritional analysis of food in South Carolina correctional facilities, conducted in 2012, found much the same. On average, a day's meals contained 3,420 milligrams of sodium, more than double the department's goal of no more than 1,500 milligrams; the 97.5 grams of sugar per day was more than double what the department intended to serve male residents (37.5 grams) and more than triple the target amount for female residents (25 grams).⁴ The meals were also high in cholesterol and low in potassium, magnesium, and vitamin E, nutrients that protect against heart disease, stroke, and cognitive decline.

The link between diet and health

Research shows that
just one month of
unhealthy meals can
result in long-term
rises in cholesterol and
body fat, increasing
the risk of diet-related
diseases.

Vague and confusing slogans like "Eat a balanced diet" and "Breakfast is the most important meal of the day" contribute to the poor grasp most Americans have of nutrition and its impact on health. At the most rudimentary level, food functions as fuel for our bodies in the form of calories derived from protein, fat, and carbohydrates. But fuel alone is not enough. We also need vitamins, minerals, and other naturally occurring micronutrients to keep our heart pumping, bones strong, and muscles flexing, and to support our body's other vital systems. Without these nutrients, our systems begin to deteriorate. A malnourished person is often portrayed as emaciated, but someone can be both malnourished and overweight, even obese, if they consume an excess of calories lacking critical nutrients.

This is why a diet rich in fresh fruits and vegetables, high-quality protein, whole grains, and healthy fats is so important. It not only provides the most efficient fuel to maintain healthy body weight, but also supplies the range of micronutrients essential for good health. A 2017 study of dietary habits and longevity in 195 countries reveals that consuming vegetables, fruit, whole



† Produce grown at Mountain View Correctional Facility (Charleston, Maine)
Source: Mark McBrine

FRESH FOOD GROWN ON SITE



PROGRAMMING



MENU PLANNING & MEAL PREPARATION

WHEN IT COMES TO FRESH FOOD, MOUNTAIN VIEW CORRECTIONAL FACILITY IN CHARLESTON, MAINE, IS A NOTABLE EXCEPTION TO THE PREVAILING NATIONAL TREND OF MINIMAL FRESH PRODUCE.

In 2018, the facility grew 150,000 pounds of vegetables, herbs, and fruit by farming its own two-and-a-half acre garden and managing a seven-acre apple orchard with 18 heirloom varieties on a leased plot of land nearby. The produce goes straight to the facility kitchen, providing Mountain View residents with vibrant, substantial salads and other nutrient-rich vegetables during the growing season. The surplus of apples is distributed among Maine's other prisons. In the future, the state department of corrections hopes to invest in equipment that will allow this facility to flash-freeze produce for use over the winter.

In 2019, through a partnership with the Maine Department of Inland Fisheries and Wildlife, Mountain View doubled its garden acreage, making space for planting 200 new fruit trees that in time will add fresh plums, peaches, pears, and cherries to the bounty of fresh apples. Mountain View's approach to providing fresh produce to support the health of residents and staff is one that other rural prisons could adopt.

grains, and fish is strongly associated with a longer life, while those whose diets include few of these foods and are heavy in sugar, salt, and trans fats are more likely to die early. The study also reports that consuming more healthy foods is a more effective way to reduce mortality than cutting back on sugars and fats.

Consuming a diet of empty calories, on the other hand—even for short periods of time—can lead to a plethora of physical and mental health problems, some with lasting consequences.⁷ Research shows that just one month of unhealthy meals can result in long-term rises in cholesterol and body fat, increasing the risk of diet-related diseases.⁸

Gaining weight or wasting away

"Over the last two decades I've witnessed a weight gain in the offender population and more offenders become insulin dependent."

- corrections officer

Michael was sent to prison at age 20. In fewer than three years in a West Coast facility, he had gained over one hundred pounds and was diagnosed with hypertension. Eli told us he had never weighed more than 180 pounds, but within a year of being incarcerated in a Northeastern prison he weighed 240. "I struggle to stay at 240. And I work the grounds," he told us. While it is possible to be healthy at a range of sizes, there is a documented link between excess weight and chronic illness, and the prison environment is not conducive to eating nourishing meals and engaging in physical activity, both protective factors at any weight.

A 2016 report from the Bureau of Justice Statistics found that incarcerated people suffer from higher rates of diabetes and heart disease (both often associated with metabolic issues that stem from excess weight) than the general public (see "Health Disparities"). Whether people enter prison with these health issues or develop them while incarcerated, the typical prison diet exacerbates those conditions. Many corrections officers have noted this with concern. "Over the last two decades I've

What exactly is a healthy diet?

There isn't one single definition of a healthy diet. Individuals have different requirements based on age, gender, genetics, activity level, personal health conditions, moral and religious concerns, cultural conceptions of wellness, and other factors. An optimal diet for one body, like going vegan or eating a hearty breakfast each day, might not be ideal for another. Moreover, some common precepts of "proper" nutrition in the United States (such as drinking milk each day) are rooted in white and Westernized constructions of a healthy diet, neglecting the needs and customs of people from marginalized communities. In our survey, more than four out of five formerly incarcerated people reported that they never had any choice or input regarding the food on their meal trays, taking away their agency to tailor their diet according to their needs. Ways of eating that promote well-being can be rooted in any number of dietary patterns and cultural traditions from around the globe, but the science and traditional wisdom are clear: a diet abundant in whole foods and low in sugar, salt, refined starches, and trans fats is a good path to health.

witnessed a weight gain in the offender population and more offenders become insulin dependent," one officer wrote to us. Another reported observing an "increase in high blood pressure and diabetes amongst the prison population." Medical professionals typically recommend dietary modifications to treat health problems like diabetes, heart disease, and hypertension, but medical diets (discussed later in this section) aren't always accessible, and incarcerated people don't have the option of modifying the food on their trays.

While far less common, rapid and drastic weight loss is a problem for some incarcerated people, particularly those who can't afford to purchase commissary items, and individuals in solitary confinement where the quality and quantity of food is

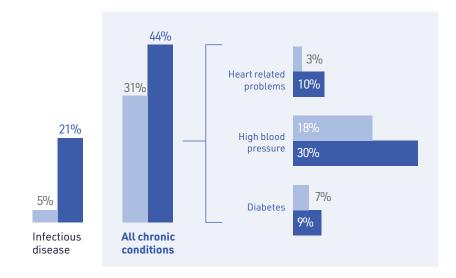
Health disparities

Data from the Bureau of Justice Statistics shows that incarcerated people experience higher rates of both chronic conditions and infectious disease, some of which are diet-related.

Incarcerated people

General public

Source: Maruschak, L., Berzofsky, M., & Unangst, J. (2016, October 4). *Medical problems of state and federal prisoners and jail inmates*, 2011-12. Bureau of Justice Statistics. **Link here**



even worse. Rapid weight loss can put individuals at risk of many health problems, including muscle loss, severe dehydration and electrolyte imbalances, gallstones, and a slowed metabolism; individuals who become underweight are also more susceptible to cardiovascular disease and early death than those of normal weight. Shawn's 11-year sentence in a Northeastern prison included a stint in solitary confinement, where her weight quickly dropped from 136 to 122; she later struggled to regain the weight. I was skinny in a facility that has a lot of violence, she told us. My body was not my weapon anymore, and people could take me."

A wide range of diet-related diseases

Gastrointestinal issues are another common ailment. A 2018 survey of incarcerated people conducted by the Incarcerated Workers Organizing Committee (IWOC) reveals that nearly two-thirds of respondents replied affirmatively to the question, "Has the food made you sick in the last year?" In our surveys and interviews, formerly incarcerated people describe the constant gnawing pain of gastritis and acid reflux, as well as facility-wide outbreaks of pathogens such as salmonella and E. coli. A 2017 study by the Centers for Disease Control and Prevention found that incarcerated men and women are six times more likely than



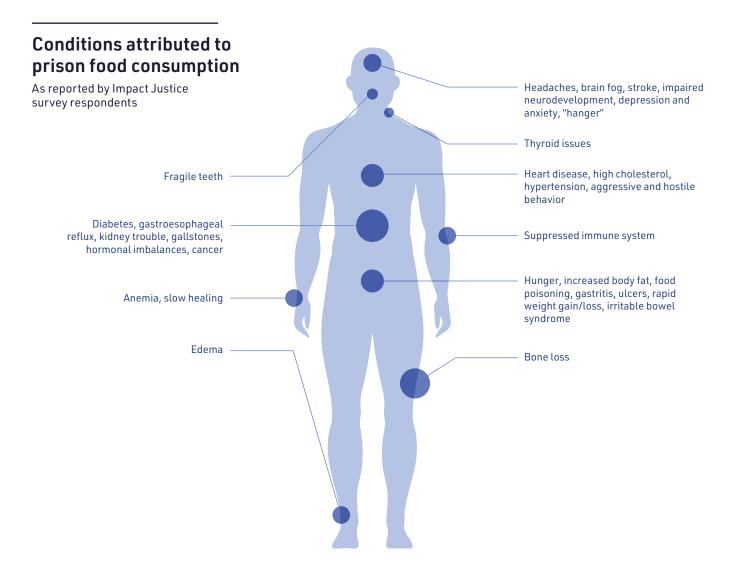
↑ A corrections officer holds up a tray of food for incarcerated people at a prison near Houston, Texas in 2013

Source: Alamy

the general public to contract a foodborne illness.¹²
People also told us about being diagnosed in prison with anemia due to insufficient iron, and with bone loss from inadequate calcium. One family member wrote, "My husband has been showing signs of edema, headaches, high blood pressure, diabetes, due to the foods being unhealthy and unbalanced." Another wrote that an incarcerated loved one's teeth displayed signs of malnutrition.

The reality of poor nutrition in prison and how it contributes to the spread of disease and to poor metabolic health has been overlooked.

More generally, a diet lacking in critical vitamins and minerals weakens the immune system, contributing to the spread and severity of infectious diseases. "When the flu runs around here, it doesn't matter how much medicine we have, we need nutrition," one corrections officer explained to us, adding, "It's just common sense." COVID-19 revealed to the general public how quickly a virus spreads in prisons and jails, proving especially lethal among people with underlying health problems. But the reality of poor nutrition in prison and how it contributes to the spread of disease and to poor metabolic health—the underlying root of many serious health conditions—has been overlooked.¹³



From depression to aggression

Along with declines in physical health, nutritional deficiencies have been shown to contribute to mental and behavioral health issues ranging from brain fog to violence. A 2015 study of incarcerated men in Australia connects low levels of omega-3 fatty acids (found in oily fish, seafood, nuts, and seeds) with more aggressive behavior. If Improper levels of cholesterol, tryptophan, phytoestrogens, carbohydrates, sugars, zinc, and protein also appear to increase aggression, other studies show. The connection between meals and behavior doesn't

go unnoticed by corrections staff. One officer suggested that serving more "meals consisting of carbohydrates increases aggression in the offender population," while another remarked that the prison food experience triggers "emotional upheaval, hostility, anger and hatred for prison staff."

"Mentally, I'm not the same. I'm emotionally detached. My mental and emotional health are damaged."

- formerly incarcerated person

Perhaps most commonly, being served unappetizing and sometimes downright awful food day after day is depressing. The partner of one incarcerated person wrote, "I have never seen my husband this depressed." While virtually every aspect of prison is depressing, and for many anxiety-provoking, a poor diet makes it even harder to cope. One formerly incarcerated man wrote to us that after the experience of eating in confinement, "Mentally, I'm not the same. I'm emotionally detached. My mental and emotional health are damaged."

Common practices such as unreasonably early or brief mealtimes, hostile and degrading eating environments, and total lack of control over food options can heighten these psychological effects. 17 The director of a women's reentry organization told us about clients who were retaliated against for advocating for their dietary needs, leading to chronic anxiety and aggravated health conditions even after their release. She added, "So many women go in a size four and come out a size twelve. These women are suffering from depression because they don't feel like the same person, they can't wear the same clothes."

Exacerbating factors: trauma and substance use

There is also evidence that factors like trauma and substance abuse are closely linked to an unhealthy relationship with food. Trauma can impact eating habits and the way the body processes food, and conversely, food insecurity and malnutrition can cause lasting trauma. The current prison eating experience can retrigger trauma and fails to take advantage of opportunities to support resilience, which could improve rehabilitative outcomes.



Adverse childhood / community experiences (ACES)

Trauma from ACES translates into negative physiological impacts, which in turn have social, emotional, and cognitive impacts. This graphic lists some of the ACES that can impact one's relationship with food.

Source: Leah's Pantry (2019).



Having a history of trauma is widespread among individuals entering the justice system, even before the potentially traumatizing experience of incarceration. Trauma frequently stems from the social and environmental factors commonly referred to as adverse childhood/community experiences, ACES for short (see above). Leah's Pantry, a California-based nonprofit that focuses on trauma-informed nutrition initiatives, describes trauma as the neurological and biological residue of toxic stress resulting from ACES, and explains that such stress disrupts positive relationships with food. 20

Food insecurity, the social stigma of relying on food stamps, and experiencing food as a weapon of control, manipulation, or punishment all fall under the heading of ACES; however, the relationship between trauma and food is not limited to these direct factors. ²¹ Leah's Pantry uses the metaphor of a house to explain how trauma and nourishment are inextricably linked (see "How trauma disrupts our relationship with food," below). When ACES are built into the foundation, they can lead to impaired neurodevelopment and can negatively affect the body in numerous ways, including chronic inflammation, increased body

How trauma disrupts our relationship with food

Just as a shaky foundation causes instability throughout a house, trauma from ACES translates into negative physiological impacts, which in turn have social, emotional, and cognitive repercussions. This graphic illustrates the ways that trauma and one's relationship to food influence each other, often to distressing effect.

Source: Leah's Pantry (2019).

HISTORIC AND

colonization and/or oppression

GENERATIONAL TRAUMA

Epigenetic predisposition to

poor health | Diet shaped by

EARLY DEATH

ILLNESS & LIMITED SELF-SUFFICIENCY

Obesity | Heart disease | Diabetes | Kidney disease

BEHAVIORAL RESPONSE, COPING STRATEGIES

Overeating | Unhealthy diet | Poor sleep hygiene | Alcoholism

SOCIAL, EMOTIONAL, & COGNITIVE IMPACTS

"Survival brain" vs "rational brain" | Craving high fat/high sugar Decreased emotional and physical self-regulation

DISRUPTED NEURODEVELOPMENT, BIOLOGICAL "WEAR AND TEAR"

Damaged metabolism | Increased body fat | Inflammation |
Gut-brain circuitry

ADVERSE CHILDHOOD & COMMUNITY EXPERIENCES, TOXIC STRESS

Food insecurity | Manipulation and abuse through food | Food assistance stigma

RACE, BIAS, ECONOMIC, & SOCIAL CONDITIONS

Unequal and unjust food access | Unhealthy food environments

fat, damaged metabolism, and disrupted gut-brain circuitry, which controls satiety cues, for example. These physiological harms have social, emotional, and cognitive impacts that can make people feel anxious and lacking in control, leading many to adopt unhealthy behaviors as coping mechanisms—which have their own negative impacts on health and can perpetuate the conditions that give rise to ACES.

Public health initiatives often fail to recognize the connection between underlying harms and people's overall relationship to food, positioning unhealthy eating as a discrete issue rather than a symptom of a larger problem.²² Providing access to nutritious food and positive eating experiences is one important way to

For the 85% of people in prison who wrestle with substance use, the typical prison diet may fuel cravings for highly palatable sweets and snacks.

address those underlying harms, to begin bringing body and mind into a state of wellness, and to interrupt patterns of thinking, feeling, and behaving that may have led to incarceration.

Substance use is a common coping mechanism and a frequent pathway to incarceration. Groundbreaking research on substance use and its relationship to gut health shows that individuals with substance use disorder (SUD) may be malnourished not only due to social and financial factors, such as homelessness or lack of money for food, but also as a result of biochemically-induced cravings for sweets and other ultraprocessed foods that are easily digestible.²³ Those struggling with SUD can experience micronutrient deficiencies that stem from both inadequate intake of healthy food and malabsorption of vitamins and minerals due to compromised function of the digestive system and disruption of the gut's microbiome. As we discuss above, these micronutrient deficiencies can significantly impact multiple facets of physical and mental health. For the 85% of people in prison who wrestle with substance use, the typical prison diet may fuel cravings for highly palatable sweets and snacks and therefore miss an opportunity to support recovery through exposure to nutrient-dense, fiber-rich food.²⁴

GARDENING & COOKING FOR HEALTH



PROCUREMENT



REENTRY

GETTING ONE'S HANDS IN THE DIRT, TENDING PLANTS, AND COOKING FOOD OFFER SENSORY AND AESTHETIC EXPERIENCES THAT CAN STIMULATE THE BRAIN IN NEW AND POSITIVE WAYS, IMPROVING ATTITUDES, BEHAVIORS, AND OVERALL MENTAL HEALTH.

Gardening and culinary education programs in prison are associated with boosts in self-esteem and resilience, reductions in violence, and the fostering of positive relationships. ²⁵ While these programs teach skills that make people more employable after release, the best programs go beyond basic skills and help people learn and grow, even within the constraints of prison.

Though the history of incarcerated people working the soil is fraught with connections to slavery and convict leasing (which we'll discuss in Section 4 of Eating Behind Bars), there are some laudable gardening programs in prisons across the country that include extensive educational components. At the Maine State Prison, people working on the grounds and gardens crews are encouraged to take the Master Gardener course, run in partnership with the University of Maine Cooperative Extension. The program allows incarcerated people to complete their course volunteer hours during their sentences so they can be fully certified before they are released. Insight Garden Program, which operates in prisons throughout California and in Ohio, integrates transformational tools like meditation, emotional process work, and ecotherapy into its courses on organic gardening and sustainable systems. And the Sustainability in Prisons Project (SPP), a partnership between the Washington Department of Corrections and The Evergreen State College, equips participants with the scientific knowledge and practical skills to maintain various environmental initiatives, including conservation efforts, beekeeping programs, and ample food gardens-bringing incarcerated individuals together with scientists, college staff, and students on the outside. In 2018, SPP sites produced more than 246,700 pounds of fresh produce, a harvest shared among prison kitchens and local food pantries.

The better prison culinary programs also go above and beyond safe food handling and other basics. Quentin Cooks, a culinary training course at San Quentin State Prison in California run by professional chefs, teaches people where food comes from, how to prepare delicious meals with high-quality ingredients, and how to function as part of a team of kitchen professionals with different roles, along with budgeting and other restaurant management skills. Participants talk about how the program not only prepares them to work in an upscale professional kitchen but also lights up their lives in prison. Program staff "treat us like humans and not like caged animals," one person observed, which restores individual dignity and builds self-confidence.

The experience of cooking and eating together forges relationships across racial and other differences that are typically barriers in prison. A participant named Max perhaps captures it best: "It breaks down the walls we put up as prisoners to protect ourselves." Quentin Cooks is currently working with employers in the hospitality industry to create a pipeline to jobs for program graduates once they leave prison, and lead instructor Chef Huw Thornton hopes to expand the program to prisons statewide.



Incarcerated people with approved special diets receive a modified version or alternative to the mainline meal. For example, someone on a gluten-free diet in Washington would receive an alternative to the pasta and tortilla wrap shown above.

Source: Impact Justice

Even something as simple as synchronizing the distribution of medications that must be taken with food with facility mealtimes may not occur routinely or ever.

Special diets

For individuals with special dietary needs, the challenge of eating well in prison becomes even more fraught because incarcerated people have little choice or control over what they eat. Although prisons are required to provide meals that accommodate a person's diagnosed medical needs and religious beliefs, in practice those needs may go unmet. In a survey, the Incarcerated Workers Organizing Committee found that half of respondents had special dietary needs, and nearly three-fourths of those people did not get their needs met. We heard from a number of formerly incarcerated people about special diets being denied, delayed, or revoked without reason or upon transfer to a new facility (in the latter case, taking months to be reinstated).

Aaron, who is allergic to beans, remembers undergoing allergy testing while he was incarcerated in a Southwestern prison and waiting a year and a half before being approved for a special diet. In the interim, he suffered severe gastrointestinal distress from regularly eating beans, an element of many daily meals, "because they didn't feed us enough," he told us. "I ate them and I suffered ... I was clutched up in my cell in pain." Once his special

diet was finally authorized, Aaron learned that pasta, not an alternative source of protein, would be replacing beans on his tray.

We documented accounts
of facilities failing to
provide adequate meals
for diabetics—instead
serving them the same
white bread and white rice
everyone else receives,
and telling diabetics to
eat around them because
"that mirrors the realworld experience."

In our investigation, we documented accounts of facilities failing to provide adequate meals for diabetics—instead serving them the same white bread and white rice everyone else receives, and telling diabetics to eat around them because "that mirrors the real-world experience"—and of pregnant women going without prenatal vitamins and getting insufficient supplemental foods. Even something as simple as providing medications that must be taken with food during facility mealtimes may not occur routinely, if ever. And if a medically recommended dietary change doesn't match the kind of food on hand in the facility—eating more red meat to improve hemoglobin levels, for example—it's highly unlikely to be met.

People whose religion dictates certain dietary restrictions may have to jump through many bureaucratic hoops simply to follow their beliefs, and sometimes the food they are provided is even more meager than the standard fare. When Michelle, a practicing Buddhist, asked her prison's Catholic chaplain to approve her request for vegetarian meals, he demanded proof that her faith espouses vegetarianism. A Protestant chaplain eventually helped her, but many of the meals she received consisted of a rubbery soy hot dog, a scoop of canned fruit cocktail, and nothing else. On other occasions, she was served a portion of onions and peppers spooned out of beef stew, or chicken in gravy minus the chicken.

Recent news reports reveal that incarcerated Muslims in Arizona prisons are being served vegetarian trays instead of halal meals.²⁷ Muslims in Virginia and Alaska prisons have sought legal recourse after being denied an alternative meal schedule to accommodate fasting during the daylight hours of Ramadan.²⁸

94%

of survey respondents couldn't eat enough in prison to feel full

93%

of survey respondents were hungry between meals

"Being hungry as a result of small portions leads to inevitable anger. It's a source of grief, sadness, anger."

— loved one of someone who is incarcerated

We also learned from Alicia, who spent 15 years in a West Coast prison, that in some facilities kosher meals are in such high demand that people lie about their faith to get one. The meals typically come prepackaged and sealed, making them appear more sanitary, and are thought to taste better. Meanwhile, people who are actually Jewish may sell their kosher meal because they need money, perhaps to buy soap, toothpaste, or something else essential, Alicia told us.

Always hungry

A reporter who visited a South Carolina prison in 2016 described the day's lunch: "Only four of the plastic tray's six molded compartments were occupied. In addition to the warmed-over round of bologna streaked with a half-inch band of gray, there was a sour-smelling heap of macaroni salad, two misshapen pieces of bread and shredded iceberg lettuce."²⁹

With a preponderance of food that doesn't function as food should—taste good, satiate hunger, and nourish body and mind—nearly everyone we surveyed said they couldn't eat enough in prison to feel full (94%) and were hungry between meals (93%). One person described it as a "constant hunger gnawing at you." Another mentioned "hanger," the anger that results from being hungry nearly all of the time. The IWOC survey reports similar statistics, with four out of five respondents stating they were denied meals or given too little food in the previous year. "I am hungry every day and I eat everything on every tray," one person wrote in reply.³⁰

That degree of hunger can make people desperate. When Aaron worked in the prison library, he got to know his staff supervisor's lunch schedule and that she normally threw away half her meal. He'd put a fresh liner in the trash can before lunch and later retrieve what she discarded: "Fresh fruit, a sandwich, a lot better than what [we were served]."

Small portions compound the problem of hunger. Numerous people compared serving sizes to trays in an elementary school cafeteria. Marcus, who spent 22 years in different West Coast prisons, described the amount as "just enough to keep you alive. I never felt full."

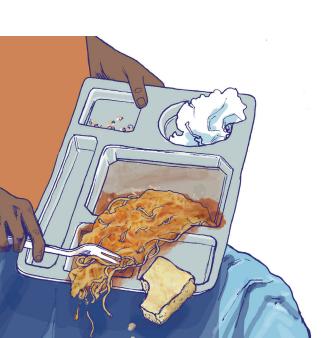
"It's as if someone handed you two Snickers bars and called it dinner."

- Theo, incarcerated 8 years

Although daily calorie intake, along with other nutritional guidelines, is mandated at the state agency level and approved by a dietitian, calories alone are not enough when they are concentrated in the form of white bread and squares of cake. As Theo said, it's as if someone handed you two Snickers bars and called it dinner. Serving sizes can be so meager that the required calorie count can only be reached by adding pats of margarine. "To hit the calories required, you would have to eat every single thing, including condiments," Eli explained to us regarding the Northeastern prison where he was sent to serve time.

When the incarcerated population was a fraction of its current size, many facilities allowed second helpings at meals—few do today. While agencies limit portions to control costs, some also use portion control as the primary or only defense against growing rates of high blood pressure and other diet-related diseases. But universal portion control leaves many incarcerated people, particularly those with larger physiques and more active individuals, without the fuel their bodies require.

Quantity can also be inconsistent, varying from meal to meal, depending on the kitchen staff's capacity for planning and preparation, and from tray to tray. We learned from James, a Black man recently released after 22 years of incarceration in the Southeast, that racism among kitchen workers can result in white people getting larger helpings, while as a person of color, "you're not going to get anything extra." Unfortunately, the prevalent solution to this problem—"blind feeding," in which there's a barrier between the kitchen server and recipient, and a tray is pushed through a slot—adds to the dehumanizing environment in the dining hall.



Both corrections staff and those who have experienced incarceration say that much of what lands on the tray is thrown away, either because people are required to take an entire meal even if they only want select items, or because the food is simply inedible. This is a poor use of limited resources, and this extensive food waste has consequences for the environment.³¹

Lasting effects

For some people, the ill effects of a poor diet in prison linger long after they are released. Eating habits once required for survival, or ones that brought a modicum of pleasure in an otherwise punishing environment, can be hard to break; the trauma of prison can manifest in both physical and psychological reactions to food. Many formerly incarcerated people we surveyed and interviewed described ongoing struggles to maintain a healthy weight and a positive relationship with food. People also described a series of health problems they believe stem at least in part from the food they ate in prison: persistent hypertension, diabetes, gastroesophageal reflux, ulcers, kidney problems, high cholesterol, hormonal imbalances, irritable bowel syndrome, gallstones, thyroid issues, fragile teeth and bones, cancer, and more.

Cuts and bruises, sprains and strains are slow to heal for Natalia after decades in prison eating meals lacking essential nutrients. Others mentioned addiction to sugary and salty foods. Jordan worries about his health and that of his wife Rosa, who spent 33 years in prison: "She's had a stroke, but hasn't laid off the soda, the chips, snacks. I've told her, I don't want anything fried, don't fry anything, but she does, and I've gained weight because of it. A lot of salt, it's an unhealthy way of cooking. She'd rather eat a bowl of [ramen] soup than anything else, even in the morning for breakfast." As one person we surveyed explained, "It's hard to get in the habit of eating healthy when a person just ate what was handy by habit. To be able to shop healthy is also expensive. And I have no clue how to."

As one person we surveyed explained, "It's hard to get in the habit of eating healthy when a person just ate what was handy by habit. To be able to shop healthy is also expensive. And I have no clue how to."

— formerly incarcerated person

Several people
mentioned a tendency
to hoard food because,
as one individual
wrote, "I have an
ingrained fear of not
knowing what I will be
eating next."

Several people mentioned a tendency to hoard food because, as one individual wrote, "I have an ingrained fear of not knowing what I will be eating next." Many others described a habit of eating too quickly, for reasons such as "I am used to trying not to taste it," or "because of the way the guards would yell at me to hurry up." This is often coupled with overeating. For months after being released, Michelle ate so quickly she couldn't taste the food. Her tendency to overeat became so extreme that a doctor prescribed medication to suppress her appetite. Even now her wife frequently admonishes her to slow down during meals.

Our survey respondents and interviewees also frequently mentioned a chronic compulsion to control what goes into their bodies. "I still would rather be the one in the kitchen or doing the grocery shopping," one individual wrote, adding "It terrifies me that I may be stuck at home, with food I hate, allergic to, etc. ... I HAVE to be in control of the food in my home." Others added, "I'm traumatized with food and extra careful to see where it comes from," and "Nothing others cook unless I'm there to see how it's prepared."

The physical and psychological impacts are profound on people of all ages, but the consequences of prison food can be particularly damaging for young people. James, who spent over 22 years in prison after being incarcerated as a juvenile, pointed out that the majority of violent offenders are young people under 25, before the age when impulse control typically solidifies in the brain. 33 He is concerned that years—and sometimes decades—of prison food have an especially detrimental effect on the brain development of those locked up in their youth: "You're going to return them back to society and people expect them to conduct themselves like they're 38, but what if their brain has never developed due to [lack of] nutrition?"

As we've detailed throughout this section, good nutrition is critical for a healthy mind and body. Our relationship with food,

however, goes beyond nutrients. If food doesn't taste good, it doesn't fully nourish us (and conversely, snack foods designed to be "hyperpalatable" aren't fully satisfying to our bodies either). A truly nourishing relationship with food balances nutrition and pleasure, whether through the enjoyment of cooking, savoring the occasional treat, or connecting with others over meals—all of which people continue to need when they're confined in prison.

NEXT UP

PART 3: FROM THE CHOW HALL TO "HOME COOKING" IN PRISON

In this third installment we focus on the physical environments where meals take place and the effects of those environments on health and wellness. We also explore "home cooking" in prison.

Endnotes

- 1 Lyon, E. (2019, January). Washington State Prisoners Protest Poor Food. *Prison Legal News*. Link here; Prison Voice Washington. (2016). *Correcting Food Policy in Washington Prisons: How the DOC Makes Healthy Food Choices Impossible for Incarcerated People & What Can Be Done*. Link here
- 2 For example, the Iowa Department of Corrections requires its facilities to serve 16 ounces of a fortified beverage daily, and the Florida Department of Corrections serves one cup of fortified tea at lunch and one cup of fortified beverage at dinner. See Iowa Department of Corrections. (2015). Food Service Business Rules.; Florida Department of Corrections. (2018). Adult Master Menu FY 2018-2019.
- 3 Hardy, K. (2016, June). Nutrition Services in Correctional Facilities. Today's Dietitian, 18(6), 32.
- 4 Collins, S. A., & Thompson, S. H. (2012). What Are We Feeding Our Inmates? *Journal of Correctional Health Care*, 18(3), 210-218. Link here
- 5 Afshin, A., Sur, P. J., Fay, K. A., Cornaby, L., Ferrara, G., Salama, J. S., Mullany, E. C., Abate, K. H., Abbafati, C., Abebe, Z., Afarideh, M., Aggarwal, A., Agrawal, S., Akinyemiju, T., Alahdab, F., Bacha, U., Bachman, V. F., Badali, H., Badawi, A., ... Murray, C. J. L. (2019). Health Effects of Dietary Risks in 195 Countries, 1990–2017: A Systematic Analysis for the Global Burden of Disease Study 2017. *The Lancet* (393), 1958–1972. Link here
- 6 Jacobs, A. (2019, April 3). Eat Your Veggies: Study Finds Poor Diets Linked to One in Five Deaths. *The New York Times*. Link here
- 7 Francis, H. & Stevenson, R. (2013). The longer-term impacts of Western diet on human cognition and the brain. *Appetite*, 63, 119-128. Link here
- 8 Ernersson, A., Nystrom, F. H., & Lindstrom, T. (2010). Long-term increase of fat mass after a four week intervention with fast food based hyper-alimentation and limitation of physical activity. *Nutrition & Metabolism*, 7(68). Link here
- 9 Maruschak, L., Berzofsky, M., & Unangst, J. (2016, October 4). *Medical problems of state and federal prisoners and jail inmates*, 2011-12. Bureau of Justice Statistics. Link here
- 10 Fletcher, G., Dawes, J., & Spano, M. (2014). The Potential Dangers of Using Rapid Weight Loss Techniques. *Strength and Conditioning Journal*, 36(2), 45-48. Link here
- 11 Incarcerated Workers Organizing Committee & Research Action Cooperative. (2018). Cruel and Usual: A National Prisoner Survey of Prison Food and Health Care Quality. Link here
- 12 Marlow, M. A., Luna-Gierke, R. E., Griffin, P. M., & Vieira, A. R. (2017). Foodborne Disease Outbreaks in Correctional Institutions–United States, 1998–2014. *American Journal of Public Health*, 107(7), 1150–1156. Link here
- 13 Incarcerated Workers Organizing Committee & Research Action Cooperative. (2018).
- 14 Meyer, B. J., Byrne, M. K., Collier, C., Parletta, N., Crawford, D., Winberg, P. C., Webster, D., Chapman, K., Thomas, G., Dally, J., Batterham, M., Farquhar, I., Martin, A.M., & Grant, L. (2015). Baseline Omega-3 Index Correlates with Aggressive and Attention Deficit Disorder Behaviours in Adult Prisoners. *PLOS ONE*, 10(3). Link here; Crime and Nourishment: Cause for a Rethink? *Prison Service Journal*, 182, 3-9.
- 15 Wallner, B., & Machatschke, I. H. (2009). Influence of Nutrition on Aggression. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources* 4(75). Link here
- 16 Schiffman, R. (2019, March 28). Can What We Eat Affect How We Feel? The New York Times. Link here

- 17 Kanarek, R. (1997). Psychological effects of snacks and altered meal frequency. *British Journal of Nutrition*, 77(S1), 105-118. Link here
- 18 Wolff, N., & Shi, J. (2012). Childhood and Adult Trauma Experiences of Incarcerated Persons and Their Relationship to Adult Behavioral Health Problems and Treatment. *International Journal of Environmental Research and Public Health*, 9(5), 1908–1926. Link here; Jäggi, L. J., Mezuk, B., Watkins, D. C., & Jackson, J. S. (2016). The Relationship between Trauma, Arrest, and Incarceration History among Black Americans: Findings from the National Survey of American Life. *Society and Mental Health*, 6(3), 187–206. Link here
- 19 Centers for Disease Control and Prevention. (2020, April 3). Preventing Adverse Childhood Experiences. Link here
- 20 Leah's Pantry. (2020, April 14-15). Trauma-Sensitive Nutrition Training [Webinar].
- 21 Leah's Pantry (2020, April 14-15).
- 22 Leah's Pantry (2020, April 14-15).
- 23 Wiss, D. (2019). The Role of Nutrition in Addiction Recovery: What We Know and What We Don't. In Danovitch, I. & Mooney, L. J. (Eds.), *The Assessment and Treatment of Addiction: Best Practices and New Frontiers* (pp. 21-42). Elsevier.
- 24 The National Center on Addiction and Substance Abuse at Columbia University. (2010). Behind Bars II: Substance Abuse and America's Prison Population. Link here
- 25 Jenkins, R. D. (2016). Landscaping in Lockup: The Effects of Gardening Programs on Prison Inmates [Master's thesis, Arcadia University]. ScholarWorks@Arcadia.; Waitkus, K. E. (2004). The impact of a garden program on the physical environment and social climate of a prison yard at San Quentin State Prison [Master's thesis, Pepperdine University]. Pepperdine Digital Commons.
- 26 Incarcerated Workers Organizing Committee & Research Action Cooperative. (2018).
- 27 Stern, R. (2020, August 8). Arizona Prisons Are Replacing Kosher and Halal Meals With Vegan Food. *Phoenix New Times*. Link here
- 28 Saleh, M. (2019, May 25). Virginia prisons putting up obstacles to Ramadan observance. The Intercept. Link here; Resnack, J. (2019, September 6). Civil liberties group, state of Alaska settle suit over meals for Muslim inmates. Alaska Public Media. Link here
- 29 Raskin, H. (2020, December 14). Feeding the prison system: Some inmates buy way around 'institutional cooking'. *The Post and Courier*. Link here
- 30 Incarcerated Workers Organizing Committee & Research Action Cooperative. (2018).
- 31 Mooney, C. (2018, April 18). The staggering environmental footprint of all the food that we just throw in the trash. *The Washington Post*. Link here
- 32 Barchitta, M., Maugeri, A., Favara, G., Magnano San Lio, R., Evola, G., Agodi, A., & Basile, G. (2019). Nutrition and Wound Healing: An Overview Focusing on the Beneficial Effects of Curcumin. *International Journal of Molecular Sciences*, 20(5), 1119. Link here
- 33 Ulmer, J. T., & Steffensmeier, D. (2014). The Age and Crime Relationship: Social Variation, Social Explanations.. In K. M. Beaver, J. C. Barnes, & B. B. Boutwell (Eds.), *The Nurture Versus Biosocial Debate in Criminology: On the Origins of Criminal Behavior and Criminality* (pp. 377-396). SAGE Publications Inc. Link here



Learn more at impactjustice.org/impact/food-in-prison/#report