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Our October 2026 Newsletter for Healthy Living

Going Grass-fed

There are a number of reasons to seek out grass fed dairy products. For foodies, the seasonal variations in flavor are a huge draw. For the health-conscious, milk from cows raised primarily on pasture has been shown to be higher in many nutrients, including vitamin E, beta-carotene and the healthy fats, omega-3 and conjugated linoleic acid (CLA). On an environmental level, grass fed dairy has a considerably reduced footprint compared to the way most dairy is produced using concentrated animal feeding operations (CAFOs).

When cows eat grass, it's a closed-loop system that bypasses the considerable resources used to produce the [genetically engineered] corn, soybeans or grains to feed dairy cows. And on an ethical level, cows are designed to eat grass. When they eat corn and grain, not only does the quality of their milk degrade but they live in a state of chronic inflammation, which increases their risk of

infection and disease. Farms producing grass fed dairy products are able to naturally regenerate the soil and maintain ecological balance without relying on chemical fertilizers and pesticides.

By mimicking the natural behavior of migratory herds of wild grazing animals — meaning allowing livestock to graze freely, and moving the herd around in specific patterns — farmers can support nature's efforts to regenerate and thrive. This kind of land management system promotes the reduction of atmospheric carbon dioxide (CO₂) by

sequestering it back into the soil where it can do a lot of good. Once in the earth, the CO₂ can be safely stored for hundreds of years and adds to the soil's fertility.

By closely observing nature, these "grass farmers" create a rotational grazing system that not only allows the land to heal but also allows the animals to behave the way they were meant to. Cows are moved every day, which mim-

-air "lagoons" that may be breached by floodwaters from hurricanes. North Carolina waste lagoons, for instance, have overflowed due to hurricanes repeatedly. Advocacy groups have repeatedly called on the U.S. Environmental Protection Agency (EPA) to close federal loopholes that are allowing CAFOs to continue polluting the planet. In a recent petition, the groups asked the EPA to require CAFOs housing a certain number of

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ics their natural patterns and promotes revegetation. By urinating and defecating on the land, the animals provide important nourishment for soil microbes. Besides adding manure, the hoof activity helps break down the hard cap on the land. To get the animals to cover and "treat" the entire acreage, cows are enticed to move across the land by placing the hay at one end and the water at the other. This helps maximize the impact of their hooves on the land, and helps distribute the waste (manure and urine) more evenly across the property. In short, the idea is to imitate nature as much as possible, which includes the migration of wild herds across the land.

While raising livestock on pasture protects the environment, raising animals in CAFOs destroys it. U.S. CAFOs produce 500 million tons of manure annually, which is three times the amount of sewage produced by humans. This is far more manure than can be safely applied to farm fields and represents a top source of pollution in the U.S. Much of the waste is stored in open

animals or using a certain kind of manure management system to obtain a permit. The EPA has said that up to 75 percent of CAFOs need permits but only 40 percent have them. The EPA has also been asked to close the loophole that allows CAFOs to discharge pollutants when they're hit with severe storms, as the definition of storms that trigger the exemption is outdated and based on 1961 data.

In addition, InsideClimate News reported: "The groups are also asking the agency to close a loophole that excludes these facilities from permitting requirements under an 'agricultural stormwater exemption.' That means, the groups say, that CAFOs are getting around permitting requirements. The Clean Water Act doesn't clearly outline what qualifies as an agricultural stormwater, leaving much room for legal interpretation, but the agency has authority to define it, the groups say." Another problem of industrialized agriculture is the overuse of antibiotics, especially for purposes of growth promotion or providing low doses to

continued on page 3

What's Inside This Issue

- **Feed the Brain Early**
- **October Specials**
- **Going Grass-fed, *continued***
- **October Monthly Coupon**

Feed the Brain Early

Eating a healthy diet early in life can set the stage for a lifetime of optimal brain function. A study involving 3,059 people, spanning more than seven decades, revealed that eating a high-quality diet as a child and even into middle age leads to better cognitive function later in life, including potentially warding off dementia. The study, presented at NUTRITION 2024, the Ameri-

of those in the lowest cognitive group had signs of dementia, compared to none of those in the highest cognitive group.

As for which foods were healthiest, those who maintained the highest cognitive abilities over time consumed more whole or less processed plant foods, including whole fruits, beans, whole grains and leafy green vegetables, and less highly processed foods

sources of complex carbohydrates — correlated with better cognitive function in later years. However, if your gut health is suboptimal, complex carbohydrates can inadvertently feed harmful bacteria. These pathogens thrive when your body is exposed to metabolic disruptors like linoleic acid and endocrine-disrupting chemicals in plastics, which impair mitochondrial energy production.

This energy deficit allows oxygen to penetrate your large intestine, creating an environment conducive to pathogenic bacterial growth. As these harmful bacteria metabolize complex carbohydrates, they multiply and eventually die off, releasing an endotoxin called lipopolysaccharide. This further compromises cellular energy production, potentially leading to digestive issues and other health problems.

If you have a preponderance of pathogenic bacteria, it makes it hard to eat healthy, because eating healthy foods makes you feel worse due to the radical increase in endotoxin. To address this, it's advisable to gradually introduce complex carbohydrates into your diet. Start with fresh juices from ripe fruits, then progress to whole fruits like oranges, tangerines, mangoes, grapes, melons, watermelons and pineapple (in moderation due to its serotonin content). This approach allows your gut to adapt while still providing the beneficial nutrients highlighted in the childhood diet study.

After acclimating to whole fruits, you can slowly incorporate more complex carbohydrates. Begin with cooked starches like potatoes (boiled to reduce oxalate content) and white rice. You can increase the resistant starch content, which doesn't spike blood sugar, by cooking, refrigerating or reheating

these foods before consumption. This gradual approach to incorporating complex carbohydrates allows you to reap their benefits — including potential long-term cognitive protection — while minimizing negative effects on a compromised gut. It underscores the truth in the adage "you are what you eat," emphasizing the profound and lasting impact of dietary choices on overall health and cognitive function throughout life.

The state of your health is not solely determined by your own lifestyle choices, but is also influenced by the dietary habits of your ancestors. This complex relationship is explained by the field of epigenetics, which studies how gene expression can be modified without

"...improvements to dietary patterns up to midlife may influence cognitive performance..."

can Society for Nutrition's annual meeting, began tracking participants at the young age of 4 and continued until they reached 70. This comprehensive lifespan perspective allowed researchers to identify potential links between diet and cognitive ability that may begin much earlier in life than previously thought — and reinforces the importance of eating nutritious foods right from the start.

Study participants were members of the 1946 British Birth Cohort, which has provided a wealth of information through questionnaires and tests over more than 75 years, offering researchers a unique opportunity to analyze dietary intakes at five distinct timepoints, comparing them to cognitive ability at seven differing points in time.

One of the most striking findings of the study was the close link between dietary quality and general, or "global," cognitive ability. The researchers observed that only about 8% of individuals with low-quality diets managed to sustain



high cognitive ability over time. Meanwhile, among those with high-quality diets, only 7% had sustained low cognitive ability compared to their peers. "These initial findings generally support current public health guidance that it is important to establish healthy dietary patterns early in life in order to support and maintain health throughout life," study author Kelly Cara, Ph.D., said in a news release.

The implications of cognitive ability on quality of life and independence in later years are significant. At ages 68 to 70, people with the highest cognitive abilities had much better retention of working memory, processing speed and general cognitive performance compared to those in the lowest cognitive group. Further, close to one-quarter

with added sugars and refined grains. Even slight dietary differences in early life seemed to influence dietary preferences later in life, underscoring the importance of establishing healthy eating habits from a young age. "This suggests that early life dietary intakes may influence our dietary decisions later in life, and the cumulative effects of diet over time are linked with the progression of our global cognitive abilities," Cara said.

In other words, cognitive health is not solely determined by factors in later life but is influenced by dietary choices made throughout the lifespan. This perspective shifts the focus of cognitive health interventions from later life to a whole-life approach, emphasizing the importance of establishing healthy dietary habits from childhood and maintaining them throughout adulthood. That said, there is hope for those who may not have had the healthiest diets in their youth. "Our findings also provide new evidence suggesting that improvements to dietary patterns up to midlife may influence cognitive performance and help mitigate, or lessen, cognitive decline in later years," Cara said.

Complex carbohydrates have traditionally been viewed as beneficial for gut health, while simple sugars are associated with accelerated aging. The featured study also found that foods like whole fruits, beans, whole grains and leafy green vegetables are best for protecting cognitive function as you age. However, the impact of complex carbs on gut health and overall health isn't straightforward, particularly if your digestive system is already compromised.

Research indicates that complex carbohydrates, including plant cell wall polysaccharides like cellulose, nourish beneficial gut bacteria, especially in the large intestine. These fibers are fermented by gut microbiota, promoting a healthy microbial balance. This aligns with the childhood diet study, which found that early consumption of fruits, vegetables, and whole grains — all

Feed the Brain Early, *continued from page 2*

altering the underlying DNA sequence. These modifications can be inherited by future generations. Within this field, nutritional epigenetics focuses on how the eating patterns of one generation can impact the health of their descendants. A prime example of this is the effect a

with 20,000 fatalities. A study published in Proceedings of the National Academy of Sciences examined whether famine exposure in utero was associated with lasting epigenetic changes in the insulin-like growth factor II (IGF2) gene, which is crucial for human growth and devel-

nitric oxide levels, which combine into peroxynitrite, a reactive oxygen species that can contribute to poor health.

These poisons include: 1) linoleic acid, an omega-6 polyunsaturated fat (PUFA), found abundantly in seed and vegetable oils as well as ultra-processed foods, may be the most harmful ingredient in the Western diet. When consumed in excess, it negatively impacts your metabolic rate and gut mi-

"...the cumulative effects of diet over time are linked with the progression of our global cognitive abilities."

mother's diet during pregnancy can have on her unborn child. The nutritional choices she makes can leave epigenetic marks on her fetus, potentially influencing not only the immediate health of her child but also that of subsequent generations. This understanding highlights the far-reaching consequences of our dietary choices, extending beyond our own lifespan and potentially shaping the health trajectories of our children and grandchildren. It underscores the importance of nutrition not just for individual well-being, but as a factor in the long-term health of family lineages. The Dutch Hunger Winter, a severe famine that occurred in the Netherlands from 1944 to 1945 during World War II, provides compelling evidence for the transgenerational effects of diet. This famine resulted from a German blockade and harsh winter conditions, which disrupted food supplies and transportation. During this period, Dutch citizens' daily caloric intake plummeted to 400 to 800 calories, far below the typically recommended 2,000 calories. People resorted to consuming unconventional food sources like grass and tulip bulbs to survive. Approximately 4.5 million people experienced severe famine,



opment. The research revealed that individuals exposed to famine before birth during the Dutch Hunger Winter had lower DNA methylation levels in the IGF2 gene compared to their unexposed siblings. These findings support the notion that prenatal and early-life environmental conditions, including dietary changes such as famine, can induce persistent epigenetic alterations in humans. Additional animal studies corroborate these results, with research demonstrating that paternal diet in sheep influenced the growth and reproduction of three subsequent generations. This body of evidence underscores the potential long-term and multigenerational impacts of significant dietary changes, highlighting the importance of nutrition not only for immediate health but also for your health later in life — and the health of future generations.

No matter your age, you can reduce your risk of chronic disease, including dementia, and help avoid cognitive decline by improving your mitochondrial function. In a study published in Neurology, a proinflammatory diet was associated with a higher risk for dementia, a disease rooted in mitochondrial dysfunction. There are pernicious poisons that destroy your mitochondrial function by affecting intracellular calcium and your body's overall cellular health. Elevated intracellular calcium can result in increased superoxide and

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crobiome, which are the two of the most important factors that impact your health. And 2) Endocrine disrupting chemicals (EDCs), from sources like microplastics. Microplastics are so pervasive that you may be eating a credit card's worth of plastic every week. That plastic is loaded with phthalates and bisphenol A (BPA), which activate estrogen receptors. Estrogen increases intracellular calcium levels, which can result in the generation of peroxynitrite.

Reference: *EurekAlert!*, July 21, 2024. *Nutrients* September 2022; 14(18):3809. Gut and Carbohydrates. Amsterdam Tulip Museum, September 25, 2017. OHSU School of Medicine, The Moore Institute 2021. *PNAS* November 4, 2009; 105(44):17046-49. *Neurology* December 14, 2021; 97(24):e2381-91. *Current Neuropharmacology*, March 28, 2022; 20(4):675-602. *International Journal of Biological Sciences* 2022; 18(3):1065-79.

Michigan Grass-fed Beef: *Humanely-raised at Person Farm in Camden, MI*



Going Grass-fed, *continued from page 1*

prevent diseases that are likely to occur when animals are raised in dirty and overcrowded living conditions.

As a result, the threat of antimicrobial resistance is increasing around the globe, including in the European

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Union (EU), where the European Centre for Disease Prevention and Control (ECDC) and the European Food Safety Authority (EFSA) released a new report on this urgent matter. Antimicro-

bial resistance refers to microorganisms — bacteria, fungi, viruses and parasites — that, after exposure to antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials and anthelmintics), evolve and become impervious to them. The resulting "superbugs" pose a serious threat to public health. In the EU, 25,000 deaths occur every year due to infections caused by antimicrobial-resistant bacteria alone.

The EU Commissioner for Health and Food Safety, said in a press release earlier this year: "*Antimicrobial resistance is an alarming threat putting*

human and animal health in danger. We have put substantial efforts to stop its rise, but this is not enough. We must be quicker, stronger and act on several fronts." Unfortunately, the use of antibiotics is incentivized to farmers worldwide. Choosing grass fed dairy and meat is a powerful way to support those producers going "grass-fed" and make a difference for your health, the environment and animal welfare.

Reference: *Socially Responsible Agricultural Project*. *Inside Climate News* March 9, 2017. *EFSA Journal* January 26, 2017. World Health Organization. *Antimicrobial Resistance* September 2016. European Center for Disease Prevention and Control February 22, 2017. *BBC News* March 6, 2017.



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