

# Plastic Is Everywhere Now, Including Your Brain

Analysis by [Dr. Joseph Mercola](#)

✓ Fact Checked

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## STORY AT-A-GLANCE

- Discarded plastics make up 18.5% of landfills and 90% of all trash entering the world's oceans. Estimates suggest that by 2050, our oceans will contain more plastic than fish by weight. In some ocean waters, plastic already exceeded plankton by a factor of 6-to-1 in 2006
- Recent animal research found plastic particles in mice's brains just two hours after the animals ingested drinking water containing microplastics
- Scientists suspect microplastic contamination in our brains may cause cognitive impairment, neurotoxicity and altered neurotransmitter levels, which can contribute to behavioral changes
- Similarly, a Chinese study published in January 2022 concluded that inhaled plastic was associated with "obvious neurotoxicity"
- The plastics industry sold consumers on the idea that plastic was recyclable and therefore sustainable even though they knew it was financially unfeasible. Consumers were also deceived by the addition of recycling codes on plastic products. The code makes it seem as though all plastic is recyclable, which isn't true

We live in a throwaway society, and products intended for short-term consumption are packaged in materials that will survive for centuries. Discarded plastics make up 18.5% of landfills<sup>1</sup> and 90% of all trash entering the world's oceans.<sup>2</sup>

At the rate we're going, estimates suggest that by 2050, our oceans will contain more plastic than fish by weight.<sup>3</sup> In some ocean waters, plastic already exceeded plankton by a factor of 6-to-1 in 2006.<sup>4</sup>

The problem with plastic is that it doesn't biodegrade; it photodegrades, which takes hundreds of years. Researchers estimate a single plastic coffee pod may take up to 500 years, the duration of the Roman Empire.<sup>5</sup> Even as it breaks down, it doesn't completely vanish. Instead, it turns into tiny plastic particles, commonly referred to as "nurdles," which act like sponges for toxic chemicals.<sup>6</sup>

These particles are routinely consumed by filter feeders in the ocean, slowly poisoning them and causing blockages. As these filter feeders are consumed by larger creatures, the toxins move up the food chain, ultimately ending up in our own bodies. Plastic chemicals also enter our bodies through other routes, including drinking water.

## Plastic in Water Can Enter Your Brain

As reported by The Guardian May 1, 2023:<sup>7</sup>

*“Researchers at the University of Vienna have discovered<sup>8,9</sup> particles of plastic in mice’s brains just two hours after the mice ingested drinking water containing plastic. Once in the brain, ‘Plastic particles could increase the risk of inflammation, neurological disorders or even neurodegenerative diseases such as Alzheimer’s or Parkinson’s,’ Lukas Kenner, one of the researchers, said in a statement ...*

*[The] researchers also believe that microplastic contamination in our brains can cause short-term health effects such as cognitive impairment, neurotoxicity and altered neurotransmitter levels, which can contribute to behavioral changes. The team gave mice water laced with particles of polystyrene – a type of plastic that’s common in food packaging such as yogurt cups and Styrofoam takeout containers.*

*Using computer models to track the dispersion of the plastics, researchers found that nanoplastic particles – which are under 0.001 millimeters and invisible to the naked eye – were able to travel into the mice’s brains via a previously unknown biological ‘transport mechanism.’*

*Essentially, these tiny plastics are absorbed into cholesterol molecules on the brain membrane surface. Thus stowed away in their little lipid packages, they cross the blood-brain-barrier – a wall of blood vessels and tissue that functions to protect the brain from toxins and other harmful substances.”*

## You Breathe and Eat Plastic Too

Other studies have demonstrated that inhaled plastic can enter your brain as well. For example, a Chinese study<sup>10</sup> published in January 2022 concluded that inhaled plastic was associated with “obvious neurotoxicity.”

More specifically, the plastic nanoparticles reduced function of brain enzymes known to malfunction in

Parkinson's and Alzheimer's patients. As such, inhaled plastic may contribute to or exacerbate these conditions.

Your health, including the function of your brain, is also largely dependent on your gut health and the function of your mitochondria, and plastic wreaks havoc there as well.

A January 2023 study<sup>11</sup> from Finland found that high doses of micro-sized polyethylene decreased cell viability and increased production of harmful reactive oxygen species (ROS) in the mitochondria, which is where most of your body's energy is produced.

## How Microplastics Get Into Meat and Milk

In 2022, Dutch scientists confirmed the presence of microplastics in meat, milk and the blood of both farm animals and humans.<sup>12,13</sup> In all, nearly 80% of meat and dairy products tested were found to contain microplastics, including 5 in 8 pork samples and 18 in 25 milk samples. As reported by the Plastic Soup Foundation, which commissioned the testing:<sup>14</sup>

*"The possible cause could be the feed of cows and pigs: all 12 samples of feed pellets and shredded feed were found to contain plastic ... Maria Westerbos, director of Plastic Soup Foundation, said, 'This study raises serious concerns about the contamination of our food chain with microplastics.'*

*It is also clear that farmers are not responsible for this. It seems that at least part of the former food products, including from supermarkets, are processed into livestock feed with packaging and all ...*

*The European Animal Nutrition Regulation 767/2009 prohibits the addition of 'packaging and parts of packaging derived from the use of food industry products.' This regulation should be enforced, according to Plastic Soup Foundation.*

*However, the Dutch Food and Consumer Product Safety Authority (NVWA) uses a so-called Reference Point of Action; contamination below 0.15% is tolerated."*

The very idea that food scraps used to make animal feed would be processed with plastic food packaging left on is shocking beyond belief. Who in their right mind would think of doing such a thing? Yet apparently, that is happening, and is common enough that the EU has regulations for it.

## Microplastics Found Everywhere

In the study above, 100% of swine and cows had microplastics in their blood.<sup>15</sup> In humans, **plastic particles have been found in the blood of 77%** of people tested.<sup>16</sup> The mean concentration of plastic particles in the blood was 1.6 µg/ml.<sup>17</sup>

Some of the blood samples contained up to three different types of plastic; steel syringe needles and glass tubes were used so no plastic would be introduced to the samples.<sup>18</sup> Of the 17 samples in which plastic particles were detected:<sup>19</sup>

- Half contained polyethylene terephthalate (PET) plastic, which is used to make plastic water and soda bottles
- One-third contained polystyrene, widely used in food packaging
- One-quarter contained polyethylene, which is used to make plastic bags

Previous studies have also detected micro-sized **plastic particles in human feces** and placental tissue,<sup>20</sup> so we know the plastic is migrating throughout the human body. Disturbingly, infants have up to 10 times more plastic in their feces than adults.

**“ Effects of exposure to microplastics in utero include reduced fetal and placental weight, coronary dysfunction, vascular perturbations, negative reproductive health outcomes and neurological dysfunction.”**

Animal studies have also confirmed the dispersion and accumulation of plastic inside the body. For example, in one study, pregnant rats were exposed, via the lungs, to 20 nm nanopolystyrene beads. Twenty-four hours later the particles were found in the mother's lung, heart, spleen and placenta, as well as the liver, lungs, heart, kidney and brain of the fetus.<sup>21</sup>

Effects of this exposure in utero included reduced fetal and placental weight, coronary dysfunction, vascular perturbations, negative reproductive health outcomes and neurological dysfunction in the offspring. Is there any reason to believe the same won't be true for human babies?

## **You Consume More Plastic Than You Realize**

According to Australian research,<sup>22</sup> the average person consumes about 5 grams of plastic per week — about the amount found in one credit card — so we're not even talking about minuscule amounts anymore. Clearly, the potential for catastrophic biological consequences for humans is growing with

every discarded piece of plastic.

Many plasticizing chemicals are [similar in structure to natural hormones](#) such as the female sex hormone estrogen, the male sex hormone androgen and thyroid hormones. As such, they interfere with development, reproduction, neurological functioning, metabolism, satiety, and immune function, and for many of these chemicals, there may be no safe level of exposure.

[Bisphenol-A \(BPA\)](#), for example, is known to disrupt embryonic development and has been linked to heart disease and cancer. [Phthalates](#) dysregulate gene expression and can trigger heart disease and cause genital anomalies — especially in baby boys — that may pass down several generations. [DEHP](#) is associated with reduced sperm count and multiple organ damage.

## DARPA Pushing More Plastic in the Food Supply

As if the situation weren't dire enough, in September 2020, the U.S. Defense Advanced Research Projects Agency (DARPA) has awarded Iowa State University and partners a \$2.7 million grant to create a process that would make FOOD from plastic and paper waste!<sup>23</sup>

The intention is to use this to feed the military men and women who have dedicated their lives to defending this country. They believe the ability to turn paper and plastic waste products into consumables could help with short-term “nourishment” and improve military logistics for extended missions.

They estimate the total award could reach \$7.8 million before the project ends. Other partners in this project include the University of Delaware, Sandia National Laboratories, and the American Institute of Chemical Engineering (AIChE)/RAPID Institute.

Basically, what they're trying to do is convert plastic waste into fatty alcohols and fatty acids, while paper waste will be turned into sugar. These base ingredients will then be bioprocessed by single-cell organisms into an, allegedly, edible mass that is rich in protein and vitamins.

In other words, the hope is that microorganisms can convert the endocrine-disrupting chemicals found in plastic into essential vitamins and proteins. I don't know about you, but this sounds like a beyond terrible idea. DARPA has also awarded Michigan Tech researchers \$7.2 million to turn plastic waste into protein powder, again using microorganisms.<sup>24</sup>

While DARPA is supposedly focusing on turning toxic plastics into “food” for the U.S. military, considering we're now in an era where synthetic, lab-created meat is valued over regeneratively grown real meat, it's not farfetched to imagine that the next step will be plastic-derived food for all.

# Plastic Recycling Was Always a Fraud

One of the selling points that got the world hooked on plastic was that it could be recycled. As reported by NPR in September 2020:<sup>25</sup>

*“Laura Leebrick, a manager at Rogue Disposal & Recycling in southern Oregon, is standing on the end of its landfill watching an avalanche of plastic trash pour out of a semitrailer ... None of this plastic will be turned into new plastic things. All of it is buried ...*

*But when Leebrick tried to tell people the truth ... people didn't want to hear it. 'I remember the first meeting where I actually told a city council that it was costing more to recycle than it was to dispose of the same material as garbage,' she says, 'and it was like heresy had been spoken in the room: You're lying. This is gold. We take the time to clean it, take the labels off, separate it and put it here. It's gold. This is valuable.'*

*But it's not valuable, and it never has been. And what's more, the makers of plastic — the nation's largest oil and gas companies — have known this all along ...*

*NPR and PBS Frontline spent months digging into internal industry documents and interviewing top former officials. We found that the industry sold the public on an idea it knew wouldn't work — that the majority of plastic could be, and would be, recycled — all while making billions of dollars selling the world new plastic ...*

*[T]he industry spent millions telling people to recycle, because, as one former top industry insider told NPR, selling recycling sold plastic, even if it wasn't true ... Documents show industry officials knew this reality about recycling plastic as far back as the 1970s.”*

## Propaganda Misled Consumers to Accept Plastic

Since the earliest days of recycling, less than 10% of the plastic produced has ever been recycled, but you wouldn't know that based on what the industry has said due to their highly effective propaganda campaigns based on absolute fraud.

In the late 1980s, the reality of plastic waste was becoming known and the public was expressing concerns about the environmental impact. Legislators were considering bans on the use of plastics. The plastic industry was in turmoil, trying to figure out how to stay in business as plastic was getting a bad rap.

The solution they came up with was, as usual, propaganda. In 1989, the plastics industry launched a

\$50 million-a-year ad campaign to promote the alleged benefits of plastic.

That same year, the industry also launched several feel-good recycling projects. “It funded sorting machines, recycling centers, nonprofits, even expensive benches outside grocery stores made out of plastic bags,” NPR writes, but by the mid-1990s, all of these projects had failed and been shuttered due to economics.

Recycling was simply too expensive. It’s far cheaper to make new things and bury the old. Over time, public concern mellowed and vanished. According to one trade group official, it seemed “the message that plastic could be recycled was sinking in.” The industry crisis passed.

## **Recycling Codes Became a Greenwashing Aid**

In the early 1990s, the industry started lobbying states to mandate recycling symbols on all plastic products. Environmentalists who supported this plan were under the impression that it would help consumers separate the plastic, thereby making recycling a bit more affordable.

There are hundreds of plastics and they cannot be processed together. Some cannot be recycled at all. The recycling symbols were supposed to make separation easier, but all it did was confuse consumers into thinking that ALL plastic with a symbol could be recycled, thereby making matters worse.

Recyclers ended up with tons of unrecyclable plastics thrown in. Not only did they now have to spend more money on sorting, but getting rid of the unrecyclable plastic also ate into their already negligible profits. While this end result might not have been intentional, the plastics industry certainly was aware that it hurt the recycling industry more than anything.

In a 1993 report, a D.C. lobbying group flatly admitted the codes were being misused. “Companies are using it as a 'green' marketing tool,” the report said. In short, the industry knew the codes printed on the bottom would mislead consumers into thinking all plastic was recyclable, as virtually no one took the time to memorize each code.

## **Reduce Your Dependency on Plastic**

It can be extraordinarily difficult to avoid plastic, considering most food and consumer goods are enshrined in plastic packaging. However, you can certainly minimize your dependency on these products. For example, consider:

Opting for products sold in glass containers rather than plastic whenever possible.

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Looking for plastic-free alternatives to common items such as toys and toothbrushes.

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Choosing reusable over single-use — This includes nondisposable razors, washable feminine hygiene products for women, cloth diapers, glass bottles for your beverages, cloth grocery bags, handkerchiefs instead of paper tissues, and using an old T-shirt or rags in lieu of paper towels.

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Drinking filtered tap water rather than bottled water, and bringing your own refillable bottles when going out.

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Buying glass food storage containers rather than plastic ones.

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Bringing your own reusable cloth shopping bags.

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Bringing your own glass dish for leftovers when eating out.

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Skipping the plastic cutlery and using your own silverware when buying take-out.

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The ubiquity of PM microplastics (plastic particles <5 mm, including nanometric plastics <1 microm) in the biosphere raises growing concerns about their implications for human health. Microplastics can enter the human body both through inhalation and ingestion, potentially causing health effects. A parallel can be drawn with particles. air pollution: small particles (<2.5 mm), such as those from diesel exhaust, are capable of crossing cell membranes and triggering oxidative stress and inflammation, and have been linked to an increased risk of death from cardiovascular disease and respiratory or lung cancer.

The potential risk of microplastic particles, including the effect of eco- or biocorona; Interaction with the immune system. Studies indicate passage of microplastics from the intestinal cavity into the lymphatic and circulatory systems, leading to systemic exposure and accumulation in tissues including the liver, kidney, and brain. The smallest particles (<0.1 m) may be able to access all organs, crossing cell membranes, the placenta and the brain, although there are gaps in knowledge regarding their absorption, distribution, metabolism and excretion.

The potential for inhaled or ingested microplastics to cause biological effects, including physical toxicity leading to oxidative stress, cytokine secretion, cell damage, inflammatory and immune reactions, and DNA damage, as well as neurotoxic and metabolic effects. Another potentially dangerous property of microplastics is the presence of an eco or biocorona, that is, biomolecules and other substances on the surface of the plastic particle, which can influence the absorption, fate and effects of the particles. Babies can face particularly high exposures.

A study of six babies and 10 adults found that babies had more microplastic particles in their stool than adults. Research suggests that microplastics can enter the fetus through the placenta, and babies could also ingest the particles through breast milk. The use of plastic baby bottles and teething toys increases children's exposure to microplastics.

[www.researchgate.net/profile/Andre-Vethaak/publication/349238735\\_Micro..](https://www.researchgate.net/profile/Andre-Vethaak/publication/349238735_Micro..) (2021)-----

[www.sciencenews.org/article/microplastics-human-bodies-health-risks](https://www.sciencenews.org/article/microplastics-human-bodies-health-risks) (2023).---

[www.ncbi.nlm.nih.gov/.../PMC9907217](https://www.ncbi.nlm.nih.gov/.../PMC9907217) (2023).----- This review shed light on the genotoxic effects of MPs determined in somatic cells of aquatic and human organisms, as well as their hypothesized mechanism of action, namely oxidative stress, inflammation, and impaired DNA repair.

Human intake of PM is based on interactions with these environments through routes of exposure (eg, dermal, ingestion, inhalation). In addition, detrimental quality of food and sleep, along with stress, put the health of the body at risk. human DNA repair system. Endocytosed MPs and direct contact of MPs with the cell membrane enhance the production of reactive oxygen species (ROS).

ROS are considered a foreign particle response produced by mitochondrial respiration and could also occur following inflammation. Antioxidant enzymes such as superoxide dismutase (SOD), catalase (CAT), and glutathione peroxidase (GPx) buffer the increased amount of ROS. The overproduction of ROS leads to oxidative damage that affects biomolecules (lipids and proteins) including DNA and therefore promotes the release of proinflammatory mediators.

## Guillermou

Furthermore, it has been predicted that the accumulation of MP in human tissues could induce physical damage, inflammation, immune responses, oxidative stress, and thus DNA damage. Responses to DNA or chromosome damage are included in the genotoxic effect of contaminants. In other words, genotoxicity is a term that includes both mutagenicity and DNA damage. Taking into account the association between DNA damage and various pathological endpoints such as cancer, cardiovascular and neurodegenerative diseases, evaluating the genotoxic potential of MPs could help to better understand their actual impact on human health.

[www.sciencedirect.com/.../S0045653521023705](http://www.sciencedirect.com/.../S0045653521023705) (2021) .-----A study by the Institute for Environmental Diagnosis and Water Studies (IDAEA) of the Higher Council for Scientific Research (CSIC) of Spain has analyzed the presence of plasticizers in 75 samples of different beverages —water, cola-type soft drinks, juices, wine and hot drinks. . The most recent studies have shown the toxicity of several of the organophosphate plasticizers, including neurological damage, endocrine disruption, cancer and fertility problems.

The presence of 2-ethylhexyldiphenyl phosphate has been detected in these drinks, which is related to an increased risk of suffering from some types of cancer, such as breast and uterine cancer. The plasticizers come from both the packaging and the added sugar itself The results show that the concentrations of the organophosphate plasticizers are similar, regardless of the brand and the type of container.

[www.huffingtonpost.es/life/salud/csic-descubre-bebida-mayor-contenido-..](http://www.huffingtonpost.es/life/salud/csic-descubre-bebida-mayor-contenido-..) (2023)

Posted On 05/11/2023

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## rrealrose

Apparently micro-plastics proliferation has been worked on for years, here's a report from the BBC yesterday: "Plastic-eating microbes that work in colder temperatures discovered" - - [www.bbc.co.uk/.../65542646](http://www.bbc.co.uk/.../65542646) - - if you care to trust the bbc on this topic...and who knows how long it may take to develop these concepts to implementation. Again and again, corporations (by far, the largest polluters) lied decades ago, with business models hell-bent on polluting the globe, and everyone bought in to their bullsh!t and marketing baloney with recycling bins and special pickup days. So much for extra time and attention; and higher local taxes to play into their ruse. That's the ongoing pattern.

Posted On 05/11/2023

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Gui, The Creator's hand through the act of Creation built Our Garden with Tools of There Is No Throwaway. It would seem the Predator\$ value system with a blind focus on Power & Control have built a throwaway society. It is also Anti-Life throwing away more than just Humans. While plasticizing chemicals similar to natural hormones of female sex hormone - estrogen, the male sex hormone androgen & thyroid hormones, & plastics interfering development, reproduction, neurological functioning, metabolism, satiety, & immune function, are bad enough, we can add a long list of many others along with heavy metals, & EMF's.

We get multiple, massive disruptors to embryonic development linked to heart disease, cancer & more. With phthalates dysregulating gene expression & can trigger heart disease & cause genital anomalies — especially in baby boys — that may pass down several generations. DEHP is associated with reduced sperm count & multiple organ damage. Puts a stop on those the .01% believe to be useless eaters, breeders, eh?

Already on a path of Global Depopulation, in the downward process, we are being aggressively De-Evolved, unable to sustain ourselves to the point of being unable to form our true identities, our true potentials, to engage in the things we have always valued as making life worth living, yet are sold multiple Bull Spit narratives saying it's all caused by anything other than what it is causing the despair, depression, mental illness, Violence, throw away people lost.

Apparently behind the scenes public policy makers are fed, it's cheaper to make new things & bury the old, so we get virtue signaling policies. (Yet take heart, every positive has a negative, every negative has a positive, meaning although the public has been given a Bull Spit path, if a real, honest, way forward we can believe in - like Regenerative Organic, Sustainable Agriculture & Communities - for the most part people are more than eager to pitch in.) Para\$itic Predator\$ won't.

Posted On 05/11/2023

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## **Guillermou**

Thanks Rose, This report describes different microplastic removal and degradation techniques with different biotic and abiotic approaches have been studied in different research over the years. 1. Biotic Degradation of Microplastics. 2. Bacterial Degradation 3. Degradation of Microplastics via Fungi 4. Removal of Microplastics by Algae and Macrophytes 5. Degradation of Microplastics by Periphytic Biofilms 6. Removal of Microplastics through Adsorption 7. Degradation of Microplastics by Advanced Oxidation Process 8. Microplastic Treatment by Coagulation and Flocculation 9. Electrocoagulation 10. Thermal Degradation/Plastic to Fuel [encyclopedia.pub/.../39064](https://encyclopedia.pub/.../39064) This website is very complete [www.horiba.com/int/scientific/applications/environment/pages/microplas..](http://www.horiba.com/int/scientific/applications/environment/pages/microplas..)

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Your statement is very true, Just, we are being subjected to a toxic soup that leads to diseases and the destruction of biodiversity. Once macroplastics enter the environment, external environmental forces (such as weathering, solar radiation) can break them down and form microplastics over time (Julienne et al., 2019). The natural decomposition of microplastics is very slow, and in the natural decomposition process, many harmful substances (such as plasticizers, short-chain/medium-chain chlorinated paraffin, antioxidants in manufacturing, etc., which account for 70% of the plastic weight ) can be released. The generation of various degradation products from microplastics (MP) under ultraviolet (UV) irradiation has been confirmed.

Gaseous products, primarily volatile organic compounds (VOCs), are often overlooked, creating unknown potential risks to humans and the environment. In this study, the generation of VOCs from polyethylene (PE) and polyethylene terephthalate (PET) under UV-A (365 nm) and UV-C (254 nm) radiation in water matrices was compared. More than 50 different VOCs were identified. For PE, the UV-A derived VOCs included mainly alkenes and alkanes. On this basis, UV-C-derived VOCs included various organic oxygen-containing compounds, such as alcohols, aldehydes, ketones, carboxylic acid, and even lactones.

For PET, UV-A and UV-C radiation induced the generation of alkenes, alkanes, esters, phenols, etc., and the differences between these two reactions were negligible. Toxicological triage prediction revealed that these VOCs have diverse toxicological profiles. The VOCs with the highest potential toxicity were dimethyl phthalate (CAS: 131-11-3) from PE and 4-acetylbenzoate (3609-53-8) from PET. In addition, some alkanes and alcoholic products also had a high potential for toxicity. [www.sciencedirect.com/science/article/abs/pii/S0045653522008475](https://www.sciencedirect.com/science/article/abs/pii/S0045653522008475) (2022)  
[www.sciencedirect.com/science/article/abs/pii/S0048969723013335](https://www.sciencedirect.com/science/article/abs/pii/S0048969723013335) (2023)

## Guillermou

Thanks Pard, quite a description of humanity subjected to eugenics. It seems that the intestinal microbiome, when attacked, fights for survival, and can be a filter to attack microplastics. This study detected for the first time the presence of genes encoding plastic-degrading enzymes in the human gut microbiome, suggesting an adaptation of the gut microbiome to microplastic contamination. gut microbiome, interestingly we found that the human gut microbiome harbors several genes that encode enzymes that degrade plastic. We then analyzed the readings by normalizing them, with rpoB as a comparison. The results show that samples collected from Indonesian coastal and montane populations contained several genes encoding plastic-degrading enzymes with different abundance and prevalence (Figure 3B and Table S1).

The gene with the highest read count and also the most prevalent gene was feaB. This gene encodes phenylacetaldehyde dehydrogenase, which is found in styrene-degrading bacteria [ . The other plastic-degrading genes were found in lower abundance and were less frequent compared to feaB and rpoB. pbsA, a gene-encoding polyester-degrading enzyme, was found only in sample C1 with a relatively high read count. This is the first report of the existence of plastic-degrading genes in human stool samples, indicating the adaptation of the human intestinal ecosystem to constant exposure to microplastics. [www.mdpi.com/.../140](https://www.mdpi.com/.../140) (2022)

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Yes Gui, and the worst of it is, it is such a massive menu and layered up over such a long time it is most likely impossible despite our best efforts to not suffer some transgression from some part of their madness. However, we have seen throughout the decades how the Garden, Planet Earth can clean up in remarkable ways, & very quickly, if given the chance. We can also see if our Attention, and Intentions focus on and in the Regenerative, Organic, Sustainable methods and not the Greenwashing Bull Spit trying to usurp honest efforts as usual, the Real Deal cleans out the .01%'s Toxic Junk.

It most likely will take several generations for some of it to be cleaned out, and unfortunately much longer for others, but with so much available the Predator Empires have left as deserts over the millennia there is plenty of room for 'house cleaning' and repairs to some of the most serious and immediate situations; restoring healthy soil with forest, grasslands, swamps and marshes, as those efforts also clean and store necessary water needs, restoring forest and reclaiming flood/food plains & building Local Housing and Community to sustain Healing and Not Stealing. But, We will have to find ways to do it. Para\$itic\$ Predator\$ won't and we already can count on them to suppress such things anyway they can.

Posted On 05/11/2023

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## Guillermou

Yes Just, excellent description of the devastation that humanity is subjected to. Humanity needs to restore biodiversity by fighting against the "predators" that are destroying the planet. People also have other weapons with food. Environmental pollution with all kinds of plastics is constantly increasing worldwide. The varied and harmful effects of exposure to toxic substances released from plastics, inter alia, contribute to the increase in the incidence of many diseases around the world. Exposure to POPs may lead to neurodegenerative disorders, induce inflammation, hepatotoxicity, nephrotoxicity, insulin resistance, allergies, metabolic diseases, and carcinogenesis.

Regardless of global efforts to reduce these pollutants in recent years, it is also important to provide protection at the individual level. There is increasing evidence of the protective effects of healthy diet on the toxicity of various pollutants, particularly of a diet rich in polyphenols, which may play protective role against the toxic effects of POPs, such as: acrylonitrile, polychlorinated biphenyls, dioxins, phthalates and bisphenol A. The protective effect of polyphenols results mainly from their impact on the components of the antioxidant system, enzymes involved in the elimination of xenobiotics, and as a consequence - on the level of reactive oxygen species (ROS).

In vitro and in vivo animal studies indicates that polyphenols exert neuroprotective, hepatoprotective, nephroprotective, antiinflammation and anticarcinogenic effects. Moreover, polyphenols reverse immunosuppressive effect and prevent against gonadotoxicity. If confirmed in clinical trials, people could control their risk of developing pollution-related diseases through the right choice of products in their diet or appropriate supplementation.

[www.sciencedirect.com/.../S004565351932140X](https://www.sciencedirect.com/.../S004565351932140X) (2020)

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## Krofter

I'm glad you mentioned nanoparticles Guillermou. Research by Clifford Carnicom and Dr. Ana Mihalcea shows that the long fibrous never- before-seen clots now being removed from the cadavers all over the world (for embalming - see the movie Died Suddenly) are composed of nanotechnocgies that, when exposed to low levels of EMF's, can not only make use of numerous types of nanoparticles for creating the clots and many other nefarious chimeras, but they can be used to kill people on demand, control them and listen to their thoughts. This marks the loss of our connection to God, the loss of our soul. It's the rise of the antichrist. The beast is now among us.

[secularheretic.substack.com/.../the-rise-of-the-antichrist](https://secularheretic.substack.com/.../the-rise-of-the-antichrist) (there are more links within that)

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## Guillermou

Thanks Kroter, we do have many toxins that are doing a lot of damage to the brain and also to the soul. EXPERT EXPOSE: INSIDE THE BLACK BOX OF BIG PHARMA New weekly Truth for Health Foundation Show kicks off... We will be interviewing the people you want to hear from. Dr Reiner Fuellmich is the first, confirmed for next week: Dr Fuellmich has set up his next undertaking, which is the International Crime Investigative Committee. I was interviewed by he and his team last week, along with Karen Kingston. [hedleyrees.substack.com/p/expert-expose-inside-the-black-box?utm\\_sourc..](https://hedleyrees.substack.com/p/expert-expose-inside-the-black-box?utm_sourc..) (05/11/2023)

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## Guillermou

EU UNVEILS PLANS TO CUT EUROPE'S PLASTIC AND PACKAGING WASTE

[www.theguardian.com/environment/2022/nov/30/eu-unveils-plans-to-cut-eu..](https://www.theguardian.com/environment/2022/nov/30/eu-unveils-plans-to-cut-eu..) (2022).---- 5 WAYS THE EU IS WORKING TO FIGHT PLASTIC POLLUTION [europeancommission.medium.com/5-ways-the-eu-is-working-to-fight-plasti..](https://europeancommission.medium.com/5-ways-the-eu-is-working-to-fight-plasti..) TOWARDS A FUTURE FREE FROM PLASTIC POLLUTION [rethinkplasticalliance.eu](https://rethinkplasticalliance.eu) .----- PLASTICS EUROPE POSITION ON THE GLOBAL PLASTICS POLLUTION AGREEMENT OBJECTIVES, SCOPE, OBLIGATIONS AND MEASURES AHEAD OF INC2. [plasticseurope.org/media/plastics-europe-position-on-the-global-plasti..](https://plasticseurope.org/media/plastics-europe-position-on-the-global-plasti..) (2023).--- A EUROPEAN STRATEGY FOR PLASTICS IN A CIRCULAR ECONOMY. [www.euoparc.org/wp-content/uploads/2018/01/Eu-plastics-strategy-broch..](https://www.euoparc.org/wp-content/uploads/2018/01/Eu-plastics-strategy-broch..) (2023)

Posted On 05/11/2023

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What about the 23% with no plastic in their blood? Why? What do they eat? This would be good to know.

Posted On 05/11/2023

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### Guillermou

The link on the analysis of polymer particles in our blood says: Vethaak acknowledged that the amount and type of plastic varied considerably between the blood samples. "But this is a pioneering study," he said, with more work now needed. He said the differences might reflect short-term exposure before the blood samples were taken, such as drinking from a plastic-lined coffee cup, or wearing a plastic face mask. "The big question is what is happening in our body?" Vethaak said. "Are the particles retained in the body? Are they transported to certain organs, such as getting past the blood-brain barrier?" And are these levels sufficiently high to trigger disease? We urgently need to fund further research so we can find out." [www.theguardian.com/environment/2022/mar/24/microplastics-found-in-hum..](https://www.theguardian.com/environment/2022/mar/24/microplastics-found-in-hum..) (2022)

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### ellivoc

Yes, interesting, but I haven't had a plastic bottle kept in my house for probably over 20 years. Only eat organic so presumably organic cows aren't fed recycled plastic. I'm veggie but do have organic dairy. Always freeze anything so they don't warm up, so doesn't release plastic particles if kept very cold. If bought in plastic immediately transfer to glass at home. Can't avoid breathing so probably still doomed. Especially as I ride bike daily and have to breathe in fumes to an extent. We have reverse osmosis water, does this remove any plastic in the tap water? Never mind, who wants to be on this planet in the future? I just feel sorry for my grandchildren. The world in 30 years, No thanks!! Jennifer

Posted On 05/11/2023

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**jef9075**

More reasons to try and eat as "regeneratively" as possible. Certified Organic rules still allow, I believe, imported fertilizers to be used on farms whereas biodynamic/regenerative farms have to use fertilizer that originates from the farm itself. This makes sense. If not certified biodynamic/regenerative, just try and get to know a local farmer ( they're at the farmers' markets) and ask about the farm practices they use. 100% grass-fed? Do they bring in any outside fertilizer (probably not)? Would they be ok if you came over to take a look at their farm? I had a farmer that was totally fine with me coming over and looking at their place. Been buying from them since.

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**Steveeeej2100**

Guillermo, I really enjoy the depths of your comments. Would you share with us a brief bio of yourself? Thanks very much

Posted On 05/11/2023

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**Guillermou**

Thank you very much Steveeeej2100. I enjoy your comment and all the interesting contributions from this great community. A big hug. Guillermo. Pressing my name has a brief description about me

Posted On 05/11/2023

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While plastic is being highlighted here today, it is just ONE of the many TOXIC pollutants we are being bombarded with on a daily basis. The annihilation of everything God has created has been in the works for thousands of years. Each year getting more and more destructive as "Science" continues to gain ground. These toxic chemicals are everywhere, it is in the air, water, foods, personal products, your furniture, carpets, vinyl, hardwood flooring and other building products. You have the toxic fumes from vehicles, factories; especially the ones that are spewing their toxic waste fumes in the air and also illegally dumping their shieet in the water and in landfills. And while i hate to attack coal, but those huge coal power plants they spew a LOT of mercury in the air, which eventually ends up in our streams, rivers and oceans.

Then RF. Then they get sucked up and falls as rain spreading the contamination everywhere. So what do we do, shall we continue to wring our hands, throw them up in the air, or toss in the white towel?

No! There are many things we can to help offset this destruction. We have our detoxifying Organs like the Liver, Kidneys , Spleen and the skin, your largest detoxing organ to help rid these chemicals.. We also have Saunas, exercise, grounding and things like REAL FOODS and herbs, filtered water, modified Citrus Pectin, Cilantro , NAC, Alpha Lipoic Acid, Chlorella, Vit. C, clays etc. Take care of your STRESS, this is one of the biggest culprits we have today and it is being administered in huge doses today by the fear mongering swines that controls ALMOST everything.

I am constantly reminded the human body is resilient, it and EVERYTHING we see was designed by the Grand Master himself, as such only He can destroy his creation, NOT anyone else. Don't lose hope, if you do it's game over and that's exactly what the evil bastards want. Be vigilant, help others as you go along, collectively we are so much more stronger. United we stand divided we fall

Posted On 05/11/2023

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Very good references, Segstar. Consider the contamination of microplastics by cars. CO<sub>2</sub> and NO<sub>x</sub> have become protagonists in car pollution measurement indices, despite the fact that CO<sub>2</sub>, for example, is not exactly a polluting gas but rather responsible for the 'greenhouse effect'. However, other types of substances that actually do pollute the environment, even if they are not precisely fossil fuels, fade into the background. For example, microplastics that are harmful to the environment. Tire and road wear particles are generated with each car journey. It is estimated that, in Germany alone, every year 110,000 tons of these particles end up on the streets in the form of microplastics.

From there, they are dispersed into the environment by wind, or carried by rainwater through urban runoff and sewers onto the ground, rivers, and oceans. This is the aim of the Audi Environmental Foundation, in collaboration with the Technical University of Berlin, is developing filters for sediment carried away by urban runoff. They prevent tire wear particles and other substances that are harmful to the environment from being washed into the sewers together with rainwater. Not only car tires, but also bicycle tires, skateboard wheels, and even shoe soles produce these fine particles that are harmful to the environment.

There is no way to avoid them completely. "But we can do something preventively to ensure that fewer microplastics enter the scene and pollute the environment," says Rdiger Recknagel, Director of the Audi Environmental Foundation. In collaboration with the Technical University of Berlin (Department of Urban Water Management) and other partners - such as filter manufacturers, software developers and water supply companies - the Audi Environmental Foundation is developing optimized sediment filters that trap these particles contaminants as close to their point of origin as possible, even before rainwater washes them into the sewer system.

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The project was launched in September 2020 and will last three and a half years. Sediment filters have a modular design and can therefore be perfectly adapted to different road situations, traffic volumes and other forms of pollution. In congested traffic situations, on a road with many curves or at an intersection with traffic lights, for example, the constant braking and starting causes the tires to lose more particles than on a straight stretch. "In addition, we also want to capture as many other pollutants as possible that accumulate in and around the streets: drink cans and cigarette butts that unfortunately often end up on the sidewalk, as well as particles that are actually natural, such as sand, leaves and pollen from trees," says Joachim Wloka, Project Manager Greenovation at the Audi Environmental Foundation and head of Urbanfilter.

Sediment filters are divided into three zones: street, sewer, and drain. "In total, we are developing nine different modules for different road and traffic conditions," explains Daniel Venghaus, Research Associate at the Department of Urban Water Management at the Technical University of Berlin.

"From this modular system, up to three different modules can be combined to achieve the best result depending on the place." In this process it is necessary to maintain and empty the filters regularly. This is where smart connectivity comes into play. For this, a large amount of information flows, such as the street cleaning schedule, traffic volume, rush hours, the beginning and end of school holidays, as well as the weather forecast. This includes even if there are a lot of trees or if people often walk their dogs on the street.

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In addition to microplastics, these are other polluting substances that cars emit into the atmosphere: -----1) CO: carbon monoxide is usually produced in gasoline engines (somewhat less in diesel) when combustion is not complete due to excess fuel or a lack of oxygen in the mixture. It is a very toxic gas that can cause death if inhaled since this molecule displaces the O<sub>2</sub> in the red blood cells, which causes very rapid poisoning. Every year hundreds of people die from CO emissions from heating boilers in poor condition, braziers, etc.

-----2) CO<sub>2</sub>: carbon dioxide, is not lethal in normal concentrations and is found naturally in the atmosphere. It is necessary for life on the planet, since it is essential for the photosynthesis process of green plants and for maintaining a warm temperature on earth. However, an excess in the concentration of this gas causes the greenhouse effect, which raises the planet's temperature excessively and unbalances the natural cycle. Its emission is higher in gasoline engines.

-----3) HC: These are unburned or partially burned hydrocarbons that are emitted from the exhaust pipe due to incomplete combustion.

They are toxic and can cause eye, skin and lung irritation. They can be present in both gasoline and diesel engines. -----4) Benzopyrenes: benzopyrenes are solid particles that are generated by the combustion of diesel, which contains more impurities than gasoline as it is less distilled than gasoline. In addition to polluting the air and promoting the formation of smog (clouds of smoke in cities), they are very carcinogenic.

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-----5) Sulfur oxides: due to sulfur impurities present in fuels, sulfur oxides are generated. Currently, its production has been greatly reduced thanks to expensive "desulfurization" processes in the fuel distillation process. Its presence is greater in diesel, so its production is more expensive than gasoline, as this process is more necessary to eliminate the sulfur present in it. They are the cause of acid rain. -----6) NO<sub>x</sub>: nitrogen oxides, precisely the cause of the controversy between Volkswagen and the EPA. They are produced by raising the pressure inside the cylinder and by working with lean fuel mixtures, which is why they are more present in diesel engines, but they are also becoming more frequent in direct injection gasoline engines, which are increasingly working with higher compression ratios and non-stoichiometric mixtures to increase performance and reduce consumption.

There are several types of nitrogen oxides depending on the composition of the molecule, which is why they are called NO<sub>x</sub>, but there are several types. NO and NO<sub>2</sub> tend to oxidize with the oxygen present in the atmosphere and become NO<sub>3</sub>. This molecule is very dangerous because it has a tendency to associate with hydrogen (also present in humidity in the air) and becomes HNO<sub>3</sub>, which is nitric acid. N<sub>2</sub>O molecules can also be formed, which are very stable, with a life cycle of about 170 years and are very dangerous by destroying ozone and being more powerful, causing the greenhouse effect.

Posted On 05/11/2023

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## Segstar

Gui all good additions and why you'll hear me say over and over again, we need to do a hard stop and take a full 180.. We have been committing suicide, self destruction if you will by destroying our precious Ecosystems.. These said Ecosystems were given to us by God to promote life, the very bane of our existence, but the Evil scums that wants to rule are trying everything they can to destroy it .. And of course their mantra is to build back better.. But BBB in whose image.. Can mankind including the "beast" build ANYTHING better than the Creator? How can they pretend to build something better when the goal is total destruction and annihilation of what God has created... I am not worried about the Earth, it will regenerate as it's being doing all along, same with our bodies, it just that the deeper down the rabbit hole we go, the more difficult it gets.....Do you see any similarities between the Earth and the human body, could it be we came from the Earth, anyone?

Posted On 05/11/2023

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## the1358

..just shoot me. lol

Posted On 05/11/2023

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## NurseKaren45

This is how I feel. Where is the sweet meteor of death? There really is no hope. We have gone far beyond the point of return. The future is pretty bleak. And when it gets here, people will be living in the apocalypse where we can not even grow or gather food and there will be NO GOOD WATER.

Posted On 05/11/2023

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## Segstar

MRROBB, lead implants, here is a willing target, stay still don't move.. lol..

Posted On 05/11/2023

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## Jeremiah.8

It's 9:42 and I'm already too depressed to get off my couch and I'm already thinking that it is probably impossible to detox from microplastics if they are traveling through the body by high jacking cholesterol. The organic free range eggs I just ate for breakfast are curdling in my stomach.

Posted On 05/11/2023

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## Segstar

Jeremiah, try not to despair (i know it's not simple ) , leave the couch for a bit, go outside and sit in the Sun if it's sunny..Place your bare feet on the grass, wet your feet and sit for a while..Observe everything around you, Nature if you will.. See the beauty in all His creation and give thanks to Him for whatever little you have..You can also use the 4/7/8 breathing technique to kick things up several notches..Bless up !

Posted On 05/11/2023

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## jja53920

Please follow up with a way to detox from micro toxins!

Posted On 05/11/2023

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## Guillermou

The gut microbiome can help fight against microplastics. This study detected for the first time the presence of genes encoding plastic-degrading enzymes in the human gut microbiome, suggesting an adaptation of the gut microbiome to microplastic contamination. The human gut microbiome was found to harbor several genes encoding enzymes that degrade plastic [www.mdpi.com/.../140](http://www.mdpi.com/.../140) (2022)

Posted On 05/11/2023

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## Guillermou

Persistent organic pollutants (POPs) released from plastics into water, soil and air are significant environmental and health problem. Continuous exposure of humans to these substances results not only from the slow biodegradation of plastics but also from their ubiquitous use as industrial materials and everyday products. Exposure to POPs may lead to neurodegenerative disorders, induce inflammation, hepatotoxicity, nephrotoxicity, insulin resistance, allergies, metabolic diseases, and carcinogenesis. This has spurred an increasing intense search for natural compounds with protective effects against the harmful components of plastics.

In this paper, we discuss the current state of knowledge concerning the protective functions of polyphenols against the toxic effects of POPs: acrylonitrile, polychlorinated biphenyls, dioxins, phthalates and bisphenol A. We review in detail papers from the last two decades, analyzing POPs in terms of their sources of exposure and demonstrate how polyphenols may be used to counteract the harmful environmental effects of POPs. The protective effect of polyphenols results from their impact on the level and activity of the components of the antioxidant system, enzymes involved in the elimination of xenobiotics, and as a consequence - on the level of reactive oxygen species (ROS).

Polyphenols present in daily diet may play a protective role against the harmful effects of POPs derived from plastics, and this interaction is related, among others, to the antioxidant properties of these compounds. To our knowledge, this is the first extensive review of in vitro and in vivo studies concerning the molecular mechanisms of interactions between selected environmental toxins and polyphenols. [www.sciencedirect.com/.../S004565351932140X](https://www.sciencedirect.com/.../S004565351932140X) (2020)

Posted On 05/11/2023

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## jdrose199

I see Fonda went to NY to protest fossil fuel ect. She would have been better off protesting plastic. Something that really matters.

Posted On 05/11/2023

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**grulla**

Since 1999, Eden Foods has gone to great lengths to eliminate BPA/BPS liners from food cans.

[store.edenfoods.com/category-beans](https://store.edenfoods.com/category-beans) Especially paragraph subtitle "BPA, BPS, and Phthalate Free Cans"

Posted On 05/11/2023

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**lim4293**

Thank you. And, they are one of the few independent organic food companies left that have not been swallowed by corporate food companies who have purchased 95% of organic brands and supplement companies. I refuse to buy Muir Glen "organic" tomatoes, which is owned by corporate America. Five years ago I told the owner of a wonderful small 45 year heath food store in PA. that they need to scrutinize the brands they carry as sooo many were corporate owned like Muir Glen. The same corporations that voted "down" GMO labelling legislation is 4 or 5 states. And, switch to brands like Eden which are free from corporate control. Every time i went in the store they had not changed these choices. I do not think they did anything to change the brands they carry, and I think most other "health" food stores are not willing to change either.

Posted On 05/11/2023

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**grulla**

The one good thing I can say about Muir Glen is they dropped the sugar from their tomato sauce ingredient list...at least from the line of organic tomato sauce that I saw.

Posted On 05/12/2023

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**Ambassador777**

The question comes up of whether plastics in the water and food are responsible for hormonal imbalances expressed as social-sexual deviancy and perversions. It's worth investigating.

Posted On 05/11/2023

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## Jeremiah.8

I have brought that up dozens of times in comment section of pertinent articles on that subject. Crickets! Vaccines as well. Look at the autism rates. 1 in 10,000 in 1970 to 1 in 5 currently. Also Lyme disease, which is now endemic in the population, can cause gender dysphoria as the spirochetes and their toxins cause changes to the brain while dysregulating sex hormones. Vaccines, bioweapons, chemtrails, toxic food etc. etc. etc. I have been researching this for 20 years and it is not hard to find. I have two adult children that are permanently disabled by Lyme disease. The list of symptoms between them both is breathtaking. They are not deviants or perverts. They are the best and most courageous people I know. Jesus Christ will sustain anyone in purity who comes to Him. Even those who do not know Him will one day bend the knee when they realize what kind of monsters they might have been but for His grace.

Posted On 05/11/2023

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## Guillermou

Yes, Ambassador and Jeremiah. In common with the increase in environmental pollution in the last 10 years, there has also been a recent increase in the prevalence of autism spectrum disorder (ASD). Exposure to microplastics is a potential risk factor for ASDs. To assess the validity of this hypothesis, we initially examined the accumulation of polyethylene (PE) in the brain of mice and then evaluated the behavioral effects using mouse models at different life stages, namely prenatal, post-weaning, puberty and adults. . Based on typical behavioral assessments of autistic traits in model mice, we established that ASD-like traits were induced in mice after PE feeding.

Furthermore, we examined the induction of ASD-like traits in response to microplastic exposure using positron emission tomography, magnetic resonance spectroscopy, real-time quantitative polymerase chain reaction, microarray analysis, and microbiomes. The findings provide evidence on microplastics as a potential risk factor for ASDs.

[www.sciencedirect.com/.../S0160412022000472](https://www.sciencedirect.com/.../S0160412022000472) (2022)

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## Guillermou

Phthalates and bisphenol A (BPA), used in the production of plastics, or DDT, widely used in the past as a pesticide in agriculture or in public places. Even if many of these substances are now banned, their residues still linger in the environment and continue to pollute. Some of the effects of these hormone-mimicking pollutants include interference with the estrogen or androgen system that affects reproductive functions, or interference with the thyroid system that affects metabolism. That is why many forms of prostate/testicular cancer or mammalian/vaginal cancer or diabetes/obesity diseases are linked to endocrine disruptors [8, 9, 10, 11] .

In the aquatic environment, the feminization of some fish populations exposed to contaminants that mimic estrogens has been reported, where all individuals became females. Sexual impotence was also recorded in several populations of marine gastropods exposed to TBT (tributyltin) used in antifouling paints for ships.

[earthzine.org/microplastics-as-carriers-of-endocrine-disruptors/](https://earthzine.org/microplastics-as-carriers-of-endocrine-disruptors/)

Posted On 05/11/2023

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## jef9075

I think you are right on target here. Along with the approximately 72 shots that many kids get before they're 18 years old.

Posted On 05/11/2023

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## lim4293

Admittedly I am am whole food vegan. Humans all over the world happily consume animals which all contain hormones that no human animal needs. Most farm animals are given steroidal hormones to increase their growth in some way. Hormones are designed to stimulate growth, and most of the animals/animal products humans eat are from female animals, rife with estrogen and progesterone. While "plastics" certainly can be a factor, animal hormones are the main cause besides eating loads of saturated fats.

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## rrealrose

Yes, someone has researched that the toxins from those 72 shots may be a primary cause of gender confusion, esp. when you add in gmo foods laced with pesticides and roundup eaten by their moms before and during gestation. Worse, the first child born is passed a lot of moms' toxins, essentially detoxing mom at the expense of the kid. "They" are now suggesting prospective parents planning a family detox for 6 months prior to getting pregnant. Who the heck was I reading who dove deep down this rabbit hole?

Posted On 05/11/2023

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## LongTallTexan

we are indeed living in the age of the big lie and here is just one more to go along with other big lies CO2 will make the world uninhabitable the 2020 election was the most secure ever C19 Vaccines are safe & effective J6 was an insurrection Trump was a Russian agent & Russian interference got him elected and many more many of which are in Dr M's daily reports

Posted On 05/11/2023

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In the above article complex subject matter: "It is also clear that farmers are not responsible for this. It seems that at least part of the former food products, including from supermarkets, are processed into livestock feed with packaging and all ..." In a similar vein in this mornings Trains Magazine article reports a company in Mississippi, Oleo-X, is starting to separate the 'good' from the 'bad' for diesel fuel and livestock feed by enabling "the processing of low-carbon, inedible oils, including poultry fat, without blending in high-quality oils taken from the food industry." I not only hope that includes plastic micro particles, but I also am concerned if their idea of inedible oils (like poultry fat) VS high quality food industry oils is the same as Mercola's, Greenmedinfo's, WAFD ,etc.

idea of safe oils VS bad oils, including plastic microparticles??? OTOH, perhaps the diesel fuel bi-product could also environmentally, safely and efficiently, burn any blended microplastics in an internal combustion engine, as plastics do have that potential for fuel under the environmentally correct conditions??? It all remains to be seen.

[www.trains.com/trn/news-reviews/news-wire/new-csx-served-facility-crea..](http://www.trains.com/trn/news-reviews/news-wire/new-csx-served-facility-crea..) (MIGHT be paywalled??? ~~~  
<https://www.oleo-x.com/> ~~~ [us14.campaign-archive.com/?u=279a95efd611e08240bf6966c&id=84d2b195..](https://us14.campaign-archive.com/?u=279a95efd611e08240bf6966c&id=84d2b195..)

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## **Guillermou**

Thank you, Grulla, fuel conversion from plastic waste is regarded as a promising strategy for its disposal and energy utilization. Plastic wastes can be converted into target fuels by adjusting cracking of chemical bonds. Currently, numerous technologies regarding fuel conversion from plastic wastes have been reported, including conventional pyrolysis, novel heat treatment and advanced oxidation. However, systematic summary and comparative analysis of different technologies are still scarcely reported. In this review, fuel conversion from plastic wastes was summarized comprehensively, highlighting novel heat treatment and advanced oxidation technologies reported in recent years.

Furthermore, the superiority and drawbacks of each technology were analyzed, and future prospects of technology application were proposed. With lower reaction temperature and higher-value fuel, novel heat treatment of plastics is more popular than traditional one. Advanced oxidation can be controlled to convert plastics into fuels under room temperature and pressure, guiding the new normal in energy utilization of plastic wastes. This review aims to provide inspiration for energy utilization of solid waste, addressing the issues of white pollution and energy shortage.

[www.sciencedirect.com/science/article/abs/pii/S0304389421024286](http://www.sciencedirect.com/science/article/abs/pii/S0304389421024286) (2022)

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## Guillermou

A team of researchers from Washington State University found a way to convert 90% of plastic waste into jet fuel in the space of an hour. The Bay of Bengal is constantly bringing three billion tons of microplastics. This water flows through India and damages the immune systems of millions of people, who depend on the river. Plastic waste is one of the most worrying pollution problems, as microparticles continue to enter the human body around the world and remain in the environment. This project was led by graduate student Chuhua Jia and Hongfei Lin, associate professor in the Gene and Linda Voiland School of Chemical Engineering and Bioengineering. The team created a catalytic process to convert polyethylene into high-value jet fuel and lubricants. Polyethylene is the main and most widely used form of plastic. It is used in a wide variety of products such as plastic bags, plastic milk jugs, shampoo bottles, and plastic furniture.

[www.openaccessgovernment.org/.../110634](http://www.openaccessgovernment.org/.../110634) (2021)

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## grulla

"Gui", Here is a website article about plastics for fuel that corroborates your comment.

[www.powermag.com/perspectives-on-energy-recovery-from-u-s-plastic-wast..](http://www.powermag.com/perspectives-on-energy-recovery-from-u-s-plastic-wast..) I've always believed in the possibility of cleanly burning plastics for generating electricity from power plants. After all, plastics are created from REFINED coal or crude oil, so that refinement should go a long way towards environmentally clean burning plastics with the right firebox and boiler designs, along with chimney scrubbers if necessary. Waste plastics ingredients for a highway "asphalt" recipe is yet another possibility. [www.powermag.com/perspectives-on-energy-recovery-from-u-s-plastic-wast..](http://www.powermag.com/perspectives-on-energy-recovery-from-u-s-plastic-wast..) ~~~  
[www.asphaltpavement.org/expertise/engineering/plastics-in-asphalt](http://www.asphaltpavement.org/expertise/engineering/plastics-in-asphalt)

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## grulla

ALSO, in the above article "Story AT A Glance", it states, "The plastics industry sold consumers on the idea that plastic was recyclable and therefore sustainable even though they knew it was financially unfeasible. Consumers were also deceived by the addition of recycling codes on plastic products. The code makes it seem as though all plastic is recyclable, which isn't true" That statement lacks accuracy and is too loose and reckless, which could actually exacerbate our waste plastic problems and derail our recycle efforts. There is nothing wrong with the recycle codes, as our local recycle center uses it to accurately sort the various waste plastics. And apparently they are paid well for their efforts so that tells me there is a legitimate demand for that plastic waste.

They do rely on some volunteer labor, and therefore are currently limited to receiving only #1, #2, and #5 plastics. The only reason they currently cannot receive #3,4,6, &7 plastics is because of the labor intensiveness for sorting and the lack of enough volunteers. I see that as "growing pains". And I strongly believe in my above comments that most ALL plastics could be recycled or burned clean for electrical energy. Let's not "shoot ourselves in the foot" with inaccuracies, or "throw the baby out with the bath water", as there are many possibilities for dealing with this waste plastics issue(s).

Posted On 05/11/2023

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## Guillermou

Optimal solutions reduce the use of plastics: EU UNVEILS PLANS TO CUT EUROPE'S PLASTIC AND PACKAGING WASTE [www.theguardian.com/environment/2022/nov/30/eu-unveils-plans-to-cut-eu..](https://www.theguardian.com/environment/2022/nov/30/eu-unveils-plans-to-cut-eu..) (2022).----- 5 WAYS THE EU IS WORKING TO FIGHT PLASTIC POLLUTION [europeancommission.medium.com/5-ways-the-eu-is-working-to-fight-plasti..](https://europeancommission.medium.com/5-ways-the-eu-is-working-to-fight-plasti..) TOWARDS A FUTURE FREE FROM PLASTIC POLLUTION [rethinkplasticalliance.eu](https://rethinkplasticalliance.eu) .----- PLASTICS EUROPE POSITION ON THE GLOBAL PLASTICS POLLUTION AGREEMENT OBJECTIVES, SCOPE, OBLIGATIONS AND MEASURES AHEAD OF INC2 [plasticseurope.org/media/plastics-europe-position-on-the-global-plasti..](https://plasticseurope.org/media/plastics-europe-position-on-the-global-plasti..) (2023).--- A EUROPEAN STRATEGY FOR PLASTICS IN A CIRCULAR ECONOMY [www.europarc.org/wp-content/uploads/2018/01/Eu-plastics-strategy-broch..](https://www.europarc.org/wp-content/uploads/2018/01/Eu-plastics-strategy-broch..)

Posted On 05/11/2023

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## don3724

(Despite younger generations desire to blame us): Many of us that grew up with glass bottles never wanted products in plastic, never thought it was an ultimately great idea and knew that glass bottles were inert and in many ways ideal. My high school had a student run recycling program - one of first in country- we collected and sorted newspaper, glass, and aluminum ourselves. Items that were actually reusable or recyclable. I've always said just because we can doesn't mean we should'- and the destruction of our health and environment through ubiquitous use of plastics, estrogen mimicking chemicals and glyphosate all in name of convenience and profit is despicable.

Posted On 05/11/2023

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## WeThePeople0

The real problem is the fact that the whole waste management system world wide is a scam. Each and every country should be forced to demonstrate that they process their own waste in an ecologically safe manner. Gasification with or without plasma guns with syngas scrubbing etc is the preferred way . But combustion with flue gas cleaning and scrubbers also are an option. Reusing plastic is not the option as it is far too expensive unless proven otherwise. Further it is paramount that using pvc and other plastics for packaging is unacceptable when a country does not have the required waste management facilities. Large companies have earned (???) more than enough and they really are a disgrace !!!!!!! They should be held responsible as they were the large profiteers.

Posted On 05/11/2023

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## lel36357

This is staggering. Clearly the brains have been infiltrated by something, since we have lost any moral compass humanity ever had. This whole gender brouhaha is connected to many toxins in our lives, but surely mostly plastic. No matter what our gender, no one wants plastic in our brains and blood. I am floored!

Posted On 05/11/2023

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## ellivoc

Yes, xeno oestrogens in the water are turning the male fish to females in a local river .

Posted On 05/11/2023

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**DonnaT\_**

NurseKaren45. I get it. These times and subjects can be worse than depressing. The way you said you feel is exactly how the dark wants you to think, defeated. But don't give away all your power as our religions have taught us to do. Don't you know who you are? You are a universally unique species called human that has gifts, abilities and emotions beyond what other life has. Even some "gods" envy our ability to grow greater in our consciousness. Over lifetimes we will gain greater awareness and understanding and be able to perform miracles, which are just science we don't yet understand. "Know ye not that ye are gods? These things and greater shall ye do." You are a piece of the Divine experiencing itself.

There is only One Consciousness here. Didn't mean to get all preachy. Believe as you want, but we have to take a look at the bigger picture and remind ourselves just why we are here. Through free will and the love in our hearts, we chose to be here at this time to fight this battle between good and evil because we knew we could make a difference. Yes, it's depressing and scary. That's why you must find ways to raise your vibration, lift yourself up, as that is how you fight. Every thought you think, every action, adds to or takes away from the total vibration of mankind, as in Love vs. Fear. This is how you help bring about the Golden Age of Man. See the Global Coherence Initiative done by the HeartMath Institute.

Posted On 05/11/2023

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**robertgipsoncomcast.net**

Excellent article. Something else unbelievable (and virtually unknown) is the the BPA "alternative" used to manufacture "BPA-free" plastic containers ... is fully as toxic as BPA, and the plastics industry (and compliant regulatory agencies) have suppressed this information.

Posted On 05/11/2023

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## MF4Mark

Germany shut down their nuclear power plants. They're now one of the top 10 polluters on the planet. Some Gen 4 reactor designs can actually "burn up" spent waste, leaving behind much less waste that only needs a couple hundred years of isolation. Even if everyone stopped all nuclear power from here out, we still have tons of it to deal with. Why not do something useful with it? So with that logic in mind, why is DARPA's plan such a bad idea? Remember corporations are responsible for 70% of greenhouse emissions. When time is money, they toss stuff in the trash rather than even attempting to recycle it. So, I'd wager they're doing most of the plastic pollution as well. Look, even if every government, business and human being stopped all use of all plastic, we are still swimming in it. Unless you wanna burn it to create electricity, that has to be one of the most ingenious solutions I've heard. It's a win-win, we get rid of the plastic waste and get a meal.

Posted On 05/11/2023

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## Segstar

Shutting down their nuclear plants was one of the biggest mistakes Germany did.. They drank the Green new deal Kool aid big time and one of the reasons they are in such doo, doo... Remember when Trump said it in his first UN speech they all laughed at him.. Yeah whose laughing now...

Posted On 05/11/2023

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## grulla

Germany, the U.S., and many other countries should explore the safe(r) use of liquid fluoride thorium reactors (LFTR). [world-nuclear.org/information-library/current-and-future-generation/th..](https://world-nuclear.org/information-library/current-and-future-generation/th..) ~~~ <https://www.thmsr.com/en/lfr/> ~~~ [energyfromthorium.com/lfr-overview](https://energyfromthorium.com/lfr-overview)

Posted On 05/11/2023

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## MF4Mark

@Grulla I think LTFR should eventually have its place although it isn't without issues. When bombarded by neutrons, Thorium transmutes to Protoactinium 233. Then you wait for that to transmute to U233. While enough of the Uranium becomes U232, a powerful gamma emitter, if the protoactinium itself was stolen, it could be formed into the classic football shape. From there, you slap on the 2 end cap explosives and shield the assembly with DU or natural Uranium. Have a religious zealot deliver and they won't complain about radiation sickness. What I'm referring to is a MSR that uses enriched Chlorine instead of Fluorine. Run it as a fast reactor with enriched Uranium and spent fuel so as to burn up the long lasting actinides. Nuclear waste problem eliminated.

Posted On 05/11/2023

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## grulla

Thanks "MF4Mark", LCTR instead of LFTR, sounds interesting, I'll have to research that. Perhaps this what you are referring to: [www.terrapower.com/our-work/molten-chloride-fast-reactor-technology/](http://www.terrapower.com/our-work/molten-chloride-fast-reactor-technology/) Also, thanks for reminding me about spent nuclear waste, as NM has recently allowed for that on rail shipments. [abcnews.go.com/US/wireStory/us-regulators-spent-nuclear-fuel-facility-..](http://abcnews.go.com/US/wireStory/us-regulators-spent-nuclear-fuel-facility-..)

Posted On 05/12/2023

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## mymercola111

We're doomed, between a tyrannical stolen government and a food and drug industry that's trying to poison us, and corrupt three-letter treasonous agencies, our only hope is the return of Jesus I can only stare in disbelief when so-called experts suggest man can solve our problems

Posted On 05/11/2023

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## Jeremiah.8

You are correct. This Golden Age of Man delusion - twisting the Scriptures to say the opposite of what they ACTUALLY say makes my heart ache.

Posted On 05/12/2023

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**mmmbeckwithwindstream.ne**

Have any studies been done to see if Lumbrokinase can help in any way to eliminate some of the plastics harm in our body? Perhaps Dr. Mercola can create a good polyphenol "cocktail/supplement ASAP for us? Thanks to everyone for your input of wonderful information!

Posted On 05/11/2023

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**bil1245**

Another case of big business screwing the public, lying about what they do, and making a profit. We're going down the toilet bowl as a society, no doubt about it.

Posted On 05/11/2023

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**joero\_**

Who is Guillerrou? This person is almost always the first to comment on every Mercola article. Does this person work for Dr. Mercola? A buddy? What are their qualifications? I trust Dr. Mercola implicitly ... actually, he was my personal doctor in the 90's. He put me on my current health/lifestyle journey. I read almost every article he publishes. But, who is Guillerrou who always has so much to contribute?

Posted On 05/11/2023

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**Segstar**

You can "reply" to one of his many posts and ask him.. I promise he won't bite, hard ..

Posted On 05/11/2023

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## Guillermou

I am a commentator like you. More than 51,000 comments. I only eat two meals a day. The first after posting to exercise the mind. In Europe we have a schedule 6 hours ahead of the US. Pressing my name has a brief description about me. Segstar, your brief description is accurate.

Posted On 05/11/2023

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## billstri

Since glass water bottles become a safety hazard when they break, you should buy quality plastic water bottles and clean and reuse them for years and years, even decades. Most of the plastic that is going to leach into your water has done so the first time the bottle was filled, so it may be a good idea to discard the water that came in the bottle when new and rinse and refill it. Another source of contamination of plastic into the water of water bottles is when the bottle is stored in the sun or hot car for a long period of time.

If that happens, it is good to empty and refill the bottle with fresh water. When drinking out of a plastic water bottle that will be reused, it is a good idea to pour the water into your mouth and not touch the rim of the water bottle. To disinfect a water bottle for reuse, use a tablespoon or so of 3% hydrogen peroxide and shake it around to kill any bacteria or viruses. For us hikers and backpackers, used plastic water bottles save a lot of weight compared to plastic or stainless steel canteens.

Posted On 05/11/2023

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## mickey2222

I thought Dr. Mercola was joking about Darpa turning plastic into food. No, he is not. Wow, sign me up for that program. Are we living in a nightmare? I think we are about to the point of having to stand up and say ( No) in huge numbers. This is clown world 100. We are falling off the cliff. [www.darpa.mil/.../2021-11-29](http://www.darpa.mil/.../2021-11-29)

Posted On 05/11/2023

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## grulla

Sludge and Soyland Green come to mind. Last week two people were interviewed, the one who contradicted much that we have learned over the years here on Mercola.com. What's going on??? Maybe us forum members are being tested to see if we're paying attention. :-)

Posted On 05/11/2023

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## Jeremiah.8

"I think we are about to the point of having to stand up and say ( No) in huge numbers" We failed on that point many decades ago. Wickedness in high places has been busy taking over our necessities for life for too long. It's over.

Posted On 05/12/2023

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## SeeStraight

This appears to be an excellent and wise use of genetic engineering. Create a bacterium that eats plastic. Or else hybridize existing bacteria that are learning on their own to consume plastic.

[www.forbes.com/sites/scottcarpenter/2021/03/10/the-race-to-develop-pla..](http://www.forbes.com/sites/scottcarpenter/2021/03/10/the-race-to-develop-pla..)

Posted On 05/11/2023

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## andiroadrunner

I do hear your good intentions regarding this thought. One of the first things I learned in Biology is the Law of competition. Unintended competition can occur with creation. Epigenetics is a reaction to environmental changes. Consider: When considering the benefits of something like bacterium that eats plastic; it also needs a perspective about what could happen if the bacterium was not able to be contained (e.g., in hospital ate through plastic tubing) and also mutated, which frequent turnover populations like bacteria are known to do. While it is a noble thought that was raised; I just want to raise the question Jeff Goldblum said in Jurassic Park 1 about woulda, coulda, shoulda /what else could happen.

~One of my friends, a Valedictorian Chemistry major who attended University with me in the 1970's, bought into the "promising field" of plastics. Financially, she did very well. I looked at the long term consequences and the possible harms and chose a different perspective. I lived in a dorm on Campus called the Intentional Democratic Community. There; we were recycling, buying in bulk, eschewing plastic, preparing whole foods, thinking of the environment proactively, and giving back to the community . We brought our own containers to fill from bulk vats and used our own cloth bags or recycled paper.

It was unfortunate they called it Democratic, as todays' New Green Deal shenanigans don't align with principles of co-existing. Nonetheless, the ideas created a Food Coop in our community that is still operating well today. The people from that dorm learned lifelong skills. I see so many people who lived there in my community that have continued beneficial practices that do not harm. Dr. Mercola's website, has this same community vibe to help others and do no harm. Thank you Dr. Mercola, for the articles, Sources /References, and for all the people who comment with valuable discussion and insights. Thanks for considering different perspectives.

Posted On 05/12/2023

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**mickey2222**

Coming out all Sea Salt tested has micro plastics in it. Only the pink Himalayan salt tested free of micro plastics.

Posted On 05/11/2023

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**dcm588**

This is where the government should be investing the Green energy money. There are loads of near permant and permanent goods that recyclable plastic can be used for that haven't been done before. And those goods will turn profits guaranteed.

Posted On 05/11/2023

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## ElectionFraudInvestigator

My recycle barrel is mostly full of plastics every week. Most all of it comes from the super market or fast food joints. Some comes from hard to open heat welded hard plastic containers containing various consumer products. Very few products are marketed in fully recyclable containers. A lot of the food products from the super market have a sticky paper label that is impossible to remove. Amazon ships products in mailable plastic bags, but again the sticky paper labels cannot be removed. This is not something individual consumer can do much about. It's something that must be addressed through cooperation of government and industry. Another issue is a lot of water is used to wash out various containers before putting them in the recycle bin.

Shampoo containers and the like are particularly hard to get clean in some cases. Banning natural gas stoves seems to be a very dumb idea. I took out my electric stove and replaced it with gas, because it cooks better. Heat pumps don't work very well. The one I have is extremely inefficient at producing heat. Another thing is that some newer refrigerators are actually exploding violently, and no one seems to be sure why. Search for it on Youtube. The doors are actually blowing off the hinges and the significant damage is occurring to the structure of the residence.

Posted On 05/11/2023

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## Docathelake

Funny that the first thing that plastic effects is meat??? Why not fruits and veggies and grains too? I we can breath it shouldn't it be everywhere???

Posted On 05/11/2023

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## jec4077

Why drink filtered tap water rather than glass bottles spring water ?? First tap water have the plastics in it ?? CAN they be filtered out ??

Posted On 05/11/2023

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Who needs deadly mRNA poisons entering our bodies when we can become plastic robots? I have always thought that re-cycling was a complete waste of time for 95% of recyclables. While not saving the planet, we are destroying ourselves. You can find liter everywhere since millions of people are trash hounds. At times, I stay in an apartment complex with mostly younger people (somewhat affluent) and there is always plastic trash to be found laying around.

Posted On 05/11/2023

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## wareagle82

Two thoughts - first, feeding the military paper and plastic is just about perfect for the sort of idiocy that now permeates the decision-making structure within the armed forces. Not long ago, there was the campaign to root out "extremists" in the ranks, whatever that meant. Then there has been the gender nonsense with its attendance distractions from good order and discipline, not to mention the cost. If someone wants that type of surgery, demanding that the taxpayer foot the bill should be a disqualifying event. Second, recycling sounds good in principle.

In practice, however, it's bad business as the NPR article cited here shows. When recycled products cost more than the originals, the result is not hard to predict. And few municipalities have the budgetary flexibility to come up with separate trash collection protocols, plus dual routes, for providing service. Whatever else one can say of govt, picking up the garbage on schedule is among the most reliable things the public sector does. But it's not cost-effective to run routes twice for the small segment of the population that will participate and then, for very little benefit on the back end.

Still, saying that plastic has "alleged" benefits overstates the case. Just imagine every item made from or containing plastic that is currently in your life no longer being there. Suddenly, there is a big gap to fill in terms of the products that are no longer there. People want solutions but those don't exist. Most of life involves trade-offs. While recycling is a sham, the value of plastic is real. And, sure; there are downsides, too. Again, tradeoffs.

Posted On 05/11/2023

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## rrealrose

Defies imagination. 15 years ago when PBS was still doing reporting, they had an entire hour or more show on the problem and showing some solutions including "degradable plastic food containers" - - so where are these? Made from plant material, some (not all) can be made to degrade over time to something far safer than what is being used today. Years ago, small markets in Italy wrapped many items in coated paper, for near immediate use. Refrigerator space was at a minimum. Housewives (mom's with children and dogs) went food shopping every other day for: olives, cheese, pizza, fresh noodles, meats, cold cuts and fish. Wrapped, ends folded and taped, (like at the deli counter.) Something similar was occurring across Japan and SE Asia with a variety of leaves, plants and stems used as bio-degradable packaging. As more women joined the workforce, lifestyle was tossed into history. When you de-emphasize FRESH food, extending shelf life is achieved by using plastic and glass.

Posted On 05/11/2023

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## tmoran

The easiest and fastest way to get rid of any foreign materials (metals, plastics etc) and toxins is by using high quality ionic foot detox. I bought "Ionic Balancer" with quad array (biggest), and it takes only 15 min every 3 days. It works by pulling toxins out of cells, tissues, organs and bringing it into circulation so the body can eliminate it. So, only 10% gets into water, and the rest has to come out within 2-3 days. It comes with color chart to see what is in the water. First time I did it I saw small shiny metal particles in the water - metals. It helps with so many health problems! It's a must have for today's polluted world.

Posted On 05/11/2023

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## HilltopJPJ

It is remarkable how quickly plastic has proliferated in my lifetime. Growing up in the sixties, I remember wax (probably paraffin) coated paper board, glass, tin and some aluminum. We had plastic wrap and I think chips may have been in foil/mylar packaging, but the majority was biodegradable. Meat came wrapped in paper or on paperboard wrapped with plastic wrap. Plastic certainly has some uses, but I hate it, I much prefer glass.

Posted On 05/11/2023

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**craig.term@gmail.com**

They find Micro and Nano plastics in Antarctica's environment, so no way of escaping it unfortunately. The microbe idea to clean up the environment may be the only option.

Posted On 05/11/2023

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**noah1218**

Dr. Mercola, a great follow up to this information would be how to cleanse from micro plastic exposure.

Posted On 05/11/2023

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**jub7920**

Can a water filter stop micro particles of plastic? Unlikely

Posted On 05/11/2023

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**rrealrose**

Yeah, just look at the smallest particle sizes involved whereas filters on most devices don't come close. This requires a precise lifestyle, yet at big box stores and supermarkets, large pallets of small plastic water bottles arrive in bundles in time for summer demand. (About the same time pallets of Roundup used to arrive.)

Posted On 05/11/2023

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**wendybolt**

Especially when one's water filter is made of plastic. I bought a new pitcher filter a few months ago. It is made of plastic. Filters out fluoride and many other things but it's made of plastic. Sigh. Now I have to save up some nonexistent money to buy yet another water filter not made of plastic, if such a thing exists. I have seen some but they are huge and very expensive.

Posted On 05/11/2023

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## HilltopJPJ

We have a Big Berkey water filter with ceramic filters, it supposed to be able to filter protozoan, theoretically (actually, I believe) we could drink swamp water with no ill effects. Our water is cleaner than most, we live in the mountains and have a drilled well. We bought the filter to be able to drink anything if needed, we have frequent power outages, but have a mountain stream running through our property.

Posted On 05/11/2023

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## Guillermou

HOW TO FILTER AND REMOVE MICROPLASTICS FROM TAP WATER? The two bottled water and tap water studies conducted by Orb Media are the largest of their kind. Orb Media analyzed 250 bottles from 9 different countries around the world. An average of 40 plastic particles per gallon, each larger than the width of a human hair, were found in the bottled water. A study by Orb Media found that 94% of tap water in the US and 72% in Europe contained microplastics. In some samples there were thousands of microplastics per liter. The big challenge is that microplastics are not regulated and therefore water companies are not required to test or include microplastics in water quality reports.

Even if the source of the water is mountain springs and lakes, there could be microplastics as plastic pollution is everywhere. Therefore, anyone concerned about their own health or that of their family members should consider purchasing a microplastic water filter. HOW CAN YOU REMOVE MICROPLASTICS FROM TAP WATER AT HOME? First of all, the smallest microplastics measured by Orb in tap water were about 2.5 micrometres, although most considerably bigger. It's important to understand the size as this will impact the type of filtering required.

There are two types of filters that will help remove microplastics of this size: 1)Carbon Blocks faucet filters: The most efficient ones, such as TAPP 2 (sold as Flo Faucet in the US) remove 100% of all known microplastics. 2)Reverse Osmosis filters: Can filter down to to 0.001 micron so will remove all known microplastics, but are more expensive and require maintenance. Make sure that the filter specifically specifies microplastics filtration and that there are independent test results to support it. [tappwater.co/.../how-to-filter-and-remove-microplastics-2](https://tappwater.co/.../how-to-filter-and-remove-microplastics-2) (2022)

Posted On 05/11/2023

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## fundamentalassumptions

As I read this w/ an eye to solutions short of more tyranny, I couldn't help being struck by the irony of big bad CARBON filters being a help. You don't say.....??? We ARE the carbon, folks. (Or at the least: these corruptible, remaining bodies still are,& the Lord, he knows we are but dust,the hope not in that but in soul& spirit: worshipping the Lord in spirit& in truth. Continuing in the word of God to freedom indeed:faith coming of hearing, hearing of the word of God, the good seed that alone bears the good fruit of eternal life, bringing the quickening of the Holy Spirit to whosoever will receive it...John 3, 4 & 15 KJB; the parables of the Sower& 1 Peter 1 KJB.) Nonetheless, temporary as these tabernacles are, they're still required in this age& indispensable until Shiloh come w/ the resurrection& the final transformation of these vile bodies into incorruptible& glorified bodies like unto that of the Lord Jesus Christ, God condescending to take on the flesh of mankind created in his image but fallen, to save whosoever will by his grace; his true, pure& unmatched love;& his provision& preservation of the good news of the whole word of God in the scriptures knowable by truth, conscience& will that men are w/o excuse.

That is the reason he 'tarries' (from our perspective): for it is not his will that any should perish,but that all who will should come to saving faith.

2 Peter KJB. The sad truth is that most will not, selling out to some idolatrous idea of ritual or works, joining in the creature Lucifer's lost cause& rebellion, worshipping& serving the creature more than the Creator who is blessed forever, holy, holy, holy.....&, here we are.

Just as he said it would be,& in spite of all his faithful warning& provision(not because of as perverters say) to be vigilant& to steward well what is given into our hand& temporary, limited dominion. Thank goodness it's temporal,& thank goodness we know how it ends& have a transcendent, yet written witness& testimony.

Posted On 05/11/2023

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## jef9075

For several years I would re-fill 2.5 gallon glass containers with reverse osmosis water and then add trace minerals to it. Started working with a functional medicine doctor, and he suggested that I go ahead and switch to distilled water and keep adding the trace minerals to it. His concern was that there might still be contaminants of some sort in the reverse osmosis water. More recently I am drinking mostly spring water from the 2.5 gallon glass containers and getting plenty of extra salt throughout the day via Redmond Real Salt or Himalayan Pink Salt. Most of us probably do not consume enough real salt ( not the salt with the picture of the girl with the umbrella). Many say that we need to eat enough real salt that tastes good to us. Most of us know when we've added too much salt to something!

Posted On 05/11/2023

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## A\_Free\_Man

Is there anything we can do to cleanse our bodies from microplastics??

Posted On 05/11/2023

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## Barbara Charis

The people in DARPA must be either morons or part of the NWO which is out to destroy our military. The only thing which people should eat is ...natural food. If DARPA is making horrifying decisions like this - End this organization.

Posted On 05/11/2023

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## fundamentalassumptions

Morality is an issue of the heart, not the brain;& conscientious moral compass depends upon the spirit served: the Holy Spirit tending to truth& life, wisdom from above which is 1st of all pure; or that other of the father of lies who brought death here thru temptation received& believed before the word of God. A man or woman can coarsen that conscience to the point of God giving them over. No doubt, this is an issue, but I have a hard time trusting anything coming out of NPR or Frontline in these days of ever more controlled, contaminated& corrupt, in-the-pocket media.

I keep wondering what the catch is in this form of greenwashing driving men toward a false either-or choice in which both choices are tyrannical& nicolaitan,& whose profitable &/or absolutist brainchild is driving the hysteria or blocking real solutions. For now it looks like purpose driven gridlock w/ c.r.i.s.i.s-creation fear puffing. How do we cleanse our bodies of plastics? Weren't Paul Stametz& some of his circle working on using fungus to at least partially clean up, or break down paper & plastics?

...much as they already do in cases of oil spill? It would also be helpful if the once-upon-a-time-in-a-place-that-was-no-place-&-time-that-was-no-time-nothing-exploded-and-everything-was-but-is-random myth could be put to rest so that we could have real,objective,repeatable& verifiable science that understands its limitations once again, as well as the difference between craft gobbledy-gook& steering w/ its idolatrous crafted superstitions& true science.

The Lord knows it all comes w/ a ton of financing& politicized corruption temptations, & worse when craft sorcerers get in there w/ their 'rods'& 'wisdom' seeking& serving Mammon upfront as in capitalism or cloaked as in complex & superstitious traditions & philosophy of covert& occult craft humanism. Division driven to reducciones thru faux 'progressive' revolutions or falling back to the vomit& calling THAT conservative is NOT the solution

Posted On 05/11/2023

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## fundamentalassumptions

I know that whole departments at the University of Akron were working on finding ways to make plastic biodegradable, as well as suggesting balance in materials usage rather than plastics monopoly w/ governmental graft& spin due to the involvement of favored corporate cronies& applied philosophy of men& devils(often having no connection even to evident truth) to give it standing w/ those whose faith is not blind, deaf& dead Laodicea. I'm sure they weren't alone. What's the environmental impact of paper, string, glass, silicone& metal production?

It doesn't matter how 'strong' the force of one's 'faith' if it's anchored to lies & hog-tied in a web of corruption, 'mental assent'&'taquiyya' deceit, tied up & bound w/& by that old seducer & accuser, the spirit that now worketh in the children of disobedience & those vainly believing & worshipping self, fallen angels or any spirit puffed up in the vanity of their corruptible & meddling w/ things they do not ...&which apart from truth, that they CANNOT know.

Will is involved. Anyways, that's the anchoring of millstones around the neck& antichrist, tending to destruction& bound for judgment: not the legitimate anchoring of faith by the 3fold cord not easily broken: evident truth, conscience& the perfect& preserved word of God in the KJB, the prophesied fulfillment of Psalm 12 for these trying, spiritually perilous times of falling away w/wolves, evil men& seducers waxing worse& worse, deceiving& being deceived.

Those who destroy the earth will be judged. Those who set their will against that of the true& holy will of God, calling God a liar, corrupting his words& his commission, refusing his provision& misusing the blessing of life, turned from whole truth to hypocrisy& pretending that truth cannot be known: bring it on. Man is not God,& he only makes things worse when he 'creates' one,presumes& pretends to be, or plays one on tv & social media, or in the antichrist craft of sorceries playing fickleness&sin for gain.

Posted On 05/11/2023

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**Lrbenj**

So, now on top of worrying about mRNA spike vaxx in our food, & graphene oxide, now we have this..seems almost hopeless.

Posted On 05/11/2023

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**brianallen1**

That is what the enemy wants you to think and how to feel. Do not despair. God designed and made the human body extremely resistant to all these toxins and attacks. Just stay informed, be prudent and vigilant and we shall prevail.

Posted On 05/11/2023

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**NurseKaren45**

Add to that GMOs and glyphosate sprayed everything (even non GMO wheat and oats after harvest), fluoride, wi-fi, LED lights, EMFs, fake meat, crappy oils, etc..... When my first kid was born in 1997 I thought I only had to worry about white sugar and white flour. Now it seems impossible to manage the toxic overload. I can't even enjoy the sweet feel of rain falling on my face without thinking of the glyphosate in it. THIS is why ignorance is BLISS. (Unless of course one takes the jab). I'm really tired and mentally exhausted trying to stay healthy and sane in this twilight zone. SMOD.....sweet meteor of death.....where are you?

Posted On 05/11/2023

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**jef9075**

Hi NurseKaren. Have mentioned this before. When it gets to a point of desperation and helplessness, it's probably a good idea to get away from ALL news sources for a while and get back to a little bit of what normal used to feel like. Turn off the T.V. Turn off the radio. Turn off the computer. Take off your shoes and socks and go walk on the earth... if you can.

Posted On 05/11/2023

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## M.H.Deal

A postscript - if microplastics are in the blood, that means that every time you get a blood transfusion you MAY get a bit of Covid vaccine along with all of the other vaccines your donor took and FOR SURE you'll add to your daily dose of microplastics. Ain't modern existence wonderful?

Posted On 05/11/2023

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## mickey2222

What modern existence. I am at the point if I get a serious issue with health, I may just go the Great Granny way. She used to say if I die today it was my time, and if not I have more things God wants me to do. All of us have to hope we never need a blood transfusion. I would say we live in the New Dark Ages 2.0

Posted On 05/11/2023

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## M.H.Deal

None of this should surprise any thoughtful human, even if your brain has become plasticized. Of course, some of us have been plasticized more than others, Joe Biden for example. And perhaps that other guy. As for the DOD sponsoring research to convert paper and plastic wastes for human food - why not throw in some insects and worms to increase protein? - that's to be expected. Humans look ceaselessly for ways to reuse [otherwise called recycling] discards. When I go to my butcher shop, I find fat and bones are collected in large drums to be taken to the renderer. The fat for lotions, the bones for toothpaste. Therefore, "civilized" humanity is poisoning itself through its consumption of foods filled with microplastics and drinking water laden with excess medicines water treatment processes are unable to remove.

Some of this might be lessened with more stringent treatment processes IF the public would bear the cost. Which it won't. Out of sight. Out of mind. As for establishing standards for adherence, I laugh. Setting standards is the propaganda contrivance of politicians in cahoots with lobbyists. Once established, no one has any intention of enforcing them. The heaps of "feel good" unenforced standards rivals the heaps of washed-up plastics on Hawaii's beaches. So glad I'm close to death because most today have no recollection of what the world was like and wouldn't know what to do if they did.

Posted On 05/11/2023

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## **M.H.Deal**

In the matter of DARPA distributing money to universities to study off-the -wall topics, remember universities will gladly take any money to study anything. There's probably no subject they'll say "no" to as long as it comes with "grease". If a project can be monetized, it's o.k.

Posted On 05/11/2023

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## **AnnAnn**

1. Can anyone recommend a brand of Himalayan salt that comes in glass container? Every one I've seen is in plastic. 2. This article recommends " handkerchiefs instead of paper tissues, and using an old T-shirt or rags in lieu of paper towels" Do paper tissues and paper towels contain plastic????!!

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## fundamentalassumptions

So, artful! '77%' of us are contaminated, you/they say? Never take craft Jesuitical speech at face value. It's counterfeit. Twisted. Run thru every sewer of man's vain idolatrous imagination fertilized by subtil lies bringing death& ALWAYS having an 'angle'. It's the lawlessness of idolatry& MYSTERY, & why they speak in symbols from occulted hierarchies of cult initiations& devilish, sensual ritual....deceiving& being deceived, self-righteous, & w/ self-righteousness justifying anything& every thing.

Turned from truth & the written word, the truth-settled & -anchored, preserved word of God, men are ripe for bondage, idolatries& counterfeits. It's only by the eternal, perfect, all-knowing, all-righteous & faithful Law, grace, foreknowledge,& mercy of God that any are saved out of it. Most will fall to& receive the uniting counterfeit & idol of idols that men& devils are building, but it didn't have to be that way. God provided his way in Christ.

Men& devils willed& crafted it to be the way of unchanged, unredeemed men& devils instead, & many followed into the lie/idolatry. Repentance& belief to new birth salvation of God's power to eternal life& bearing the good fruit of obedience, separation& sanctification, reasoning from the scriptures, exposing public lies publicly from circumspect, separate& vigilantly guarded& protected ground: from& on the Rock, in his protection: not stepping onto the shifting sand w/ the lost& perishing ....revivals marked by quiet, humble, voluntary, individual holiness& sanctification: not mystical flim-flam& BIGtalk-w-the-builders(who've rejected the chief cornerstone)...could effectually stay any of this.

Don't see that. I see but Craft in either 'side'!! The confusion&futility of the world's idolatry,& the further justification & fulfillment of God's preserved scripture so utterly unique, identifiable,& unlike any of the idolatrous inventions, corruptions &/or improvements of proud, unbelieving hirelings& minions of the wrong 'Do'.

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## arnopi1

We can detox against metals. Is there anything similar for plastic?

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## Robert from Alberta Canada

More BPA... more injections... more easily controlled chemically castrated steers, queers, zombies, woke libtards and trannies. The plot to keep the masses IN THE DARK until the great reset RUG PULL

[www.brighteon.com/15a8639c-bd79-4c32-8f8a-74507894f251](http://www.brighteon.com/15a8639c-bd79-4c32-8f8a-74507894f251) <<< a must listen to Mike Adams Brighteon commentary.

[www.brighteon.com/.../hrreport](http://www.brighteon.com/.../hrreport) The Censorship-Industrial Complex

[brownstone.org/articles/the-censorship-industrial-complex/?ref=truth11..](http://brownstone.org/articles/the-censorship-industrial-complex/?ref=truth11..) or [www.truth11.com/untitled-1051](http://www.truth11.com/untitled-1051) Oklahoma

Farmer: "I Think We're To The Dust Bowl, About The Same Or Worse." [Ice Age Cycles/starvation(s)s and preventative eugenical mitigating depopulation(s) - it's a cycle, it's a cycle, it's a cycle]

[michaelt Snyder.substack.com/p/oklahoma-farmer-i-think-were-to-the](http://michaelt Snyder.substack.com/p/oklahoma-farmer-i-think-were-to-the) Currently the injected and/or brain plasticized zombies in Alberta [30,000+] in lockdown/road blocked concentration camps and/or banished from their homes/farms/ranches believe the ongoing blatant government/media lies justifying the latest bogus/hoaxed "State of Emergency" government/media disinfo.

Eugenics works... and it's OK. It's really quiet out here [not even crickets, unfortunately... dead as heaven on a Saturday night as they say... except for the roosters crowing, chickens clucking, cows mooing and birds chirping... zero zombie activity for tens of miles in all directions... the oil pump jacks are all stopped, the natural gas has been shut off locally, negligible air or auto traffic... I'm kinda' really likin' it and the city zombies are now blocked from getting out to the local countryside... at least around here anyway. Practice gov't lockdown drills and ongoing eugenics tactics/media disinfo, zombie reduction while hopefully high-grading the local non-zombie herd, figuring more and more everyday now that we've gotta trust the plan. Stay frosty, stay situationally aware. Cheers Pard.

Posted On 05/11/2023

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## mrrobb

MMMMMMMMM !!!!! YES!!!!!! a McPoly wrapped in shrink wrap...for Family-Dining at the best.....

Posted On 05/11/2023

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## Segstar

What kinda sauce would you like with your meal sir..Ah lemme see, give me one a each..Ah lordie interesting times indeed.. Keep your barrel well oiled and your powder dry..

Posted On 05/11/2023

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