



RAISING A NATURALLY HEALTHY CHILD – CHEMICAL FREE

There are over 85000 chemicals in daily use in US. But only 2000 or so has been tested for its safety. The rest (83000) are potent and potentially dangerous. Many of these chemicals affect, mimic or interfere with the actions of hormones in the human body.

Please read this and try making small changes in your and your kid's life to raise them chemical free and healthy.

FOOD AND BEVERAGE

Water: Tap water and some bottled water contain pesticides, hormones, antibiotics, and even components of rocket fuel (perchlorate). Look for an NSF-certified filter that removes most of these toxins.

rBST: Today's cows produce double the amount of milk they did just 40 years ago, thanks largely to a genetically engineered, synthetic hormone called recombinant bovine somatotropin, or rBST. Scientists link rBST to prostate, breast, and colon cancers. It's banned in other countries, and although still legal here.

Rennet: Cheese makers traditionally use rennet derived from the mucosa of a veal calf's fourth stomach to create the beloved, versatile dairy product. Food industries' new found source of rennet - a genetically modified version derived from a cloned calf gene. The long-term health effects of eating genetically engineered foods has never been studied in humans. GMO ingredients aren't listed on the label. And such GMO rennets are often listed simply as "enzymes" on an ingredient panel.

Dyes: Many artificial food dyes found in hundreds of everyday foods are made from petroleum-derived materials. Orange and purple food dyes have been shown to impair brain function, while other dyes have been linked to ADHD and behavioral problems in kids and brain cell toxicity.

Carmine, crimson lake, cochineal, or natural red #4: A bright red food colorant, is actually the crushed abdomen of the female *Dactylopius coccus*, an African beetle-like insect and is commonly found in red candies and red-tinted yogurts and juices.

Castoreum: This gross ingredient won't show up on the label. Instead, companies using it in making processed food list it as "natural flavoring." It's a bitter, smelly, orange-brown substance used extensively in processed food and beverages, typically as vanilla or raspberry flavoring. Get this: It comes from beaver's urine.

L-cysteine: A non-essential amino acid made from dissolved human hair (often from China) or duck feathers is used as a dough conditioner to improve the texture of breads and baked goods. Eating something derived from the human body violates Muslim beliefs. Hair and duck feathers pose an ethical dilemma for vegans, too.

Glyphosate: Glyphosate, the active chemical ingredient in the popular weed killer, Roundup, is a hormone-disrupting chemical now used primarily on corn and soy crops genetically engineered to withstand a heavy dousing of the chemical. Glyphosate exposure is linked to obesity, learning disabilities, birth defects, infertility and potentially irreversible metabolic damage. To avoid pesticides in products, eat organic and avoided processed foods as much as possible. And use caution -- "all natural" foods often are chockfull of pesticides and genetically engineered ingredients.

Perfluorinated chemicals: An industrial nonstick chemical is commonly used to coat the inside of popcorn bags and in the nonstick coating of many pots, pans and baking sheets. A study published in January 2012 in the *Journal of the American Medical Association* found that nonstick chemicals in popcorn bags significantly damage the immune system. Nonstick chemicals are also linked to high cholesterol, sperm damage and infertility, and ADHD.

Ammonia in Meat: Factory-farm conditions are rife with bacteria. To try to make the meat "safer," industry typically puts the beef through an ammonia gas bath. The process is banned in organic certified meat.

BVO – Brominated vegetable oil: The toxic flame retardant chemical was first used to keep plastics from catching on fire. In the last decade we have seen it enter in a variety of foods to keep the artificial flavoring chemicals from separating from the rest of the liquids. It is found in certain sodas, juices, and sports drinks, including Mountain Dew, Fanta Orange, Sunkist Pineapple, and some Powerade flavors. (Gatorade announced it would remove the compound from its drinks in Spring 2013.) Scientists have linked too much BVO to bromide poisoning symptoms like skin lesions, memory loss, and nerve disorders.

Titanium dioxide: This was primarily used to make food look much whiter and thus convey a feeling of "clean". Commonly used in paints and sunscreens, food companies add it to lots of things we eat, including processed salad dressing, coffee creamers, and icing. Titanium is a mined substance that is sometimes contaminated with toxic lead.

Lead: shown to cause brain damage to developing babies, causing a lifetime of learning and health implications. Lead is also linked to depression in teens. It is often found in old paint and brightly colored toys (typically made in China). A diet low in fat and high in calcium and iron, with foods like low-fat dairy and leafy green vegetables, can help block some harmful effects of lead exposure.

Mercury: is toxic to the brains of developing fetuses and could cause irreversible damage. Fish is the No. 1 source of human exposure. Mercury has also been detected in high-fructose corn syrup. Avoid fish. If you cannot, eat wild-caught Alaskan salmon or Pacific wild sardines.

PCBs: Even small doses can disrupt healthy nerve cell functioning and throw off the body's natural calcium signaling, which could increase some children's autism risk. PCBs are found all over the environment—and inside most of us. To avoid eat lower on the food chain. PCBs accumulate in animal fat. Removing fish skin and trimming fatty parts of meat can help cut back on your family's PCB exposure.

Organochlorine Pesticides: are implicated in birth defect and autism clusters. It is more common in farming communities, and where bug-killing chemical are extensively used. Support organic farming to reduce your risk of eating pesticide residues, as well as to protect people who live near or work on chemical farm operations. Greatest exposure comes from snap beans, tomatoes, and watermelons, so buy these items organic.

Organophosphate Pesticides: Chlorpyrifos, an organophosphate insecticide, is still one of the most widely used farm chemicals in the U.S. Its residue has turned up on apples, bell peppers, cranberries, kale, grapes, peaches, and dozens of other foods. Eat organic as often as possible. Studies have proven that pesticide levels in the body plummet when consumers switch to an organic eating regimen.

WHAT DO YOU DO?

- Buying organic produce.
- Avoid meat and seafood – which tend to accumulate these chemicals. Eat more vegetables and fruits.
- If you have to, consume only low mercury fishes.
- Use a filter (like reverse osmosis) for drinking water.
- Avoid food contact with Plastics. Use ceramic, glass or stainless steel instead.
- avoid plastic food containers and plastic wrap made from PVC

- Avoid Personal care products that list "fragrance" as an ingredient
- Consume enough iodine in the diet to reduce the effects of Perchlorate
- Avoid products with the ingredients 2-butoxyethanol (EGBE) and methoxydiglycol (DEGME)

CLOTHING

Toxic clothing: Convenience clothing may significantly affect your health. Claims like "wrinkle-free," "waterproof," "mildew-resistant," "antimicrobial," "permanent press," or "stain-proof" should raise a red flag. They're likely loaded with chemicals that have never been properly tested to determine their full impact on your health.

Dry-Cleaning Chemicals PERC: Cleaning chemical of choice in this country remains perchloroethylene, also known as PCE, or perc. This chemical is classified a probable carcinogen and is linked to kidney, liver, and central nervous system damage. It's not something you want to wear or have holed up in your home closet.

HOUSEHOLD ITEMS

Nonstick Chemicals: Studies suggest that the nonstick coating in cookware cookware might be a culprit in ADHD in children and high cholesterol and infertility issues in adults. It is typically found in nonstick cookware, waterproof clothing, and certain stain-repelling fabrics used in carpeting and furniture. Replace it with cast iron or untreated stainless steel. Also, pass on furniture and carpet treatments offering stain protection.

Nonstick Cookware and Bakeware: Synthetic material known as perfluoroalkyl acid, a class of chemicals that have been linked to ADHD, high cholesterol, and thyroid disease. They're also potent sperm killers and are suspected of contributing to female infertility. Better Alternative: Opt for safer cookware like made-in-America cast iron, glass or stainless steel.

Vinyl: Some environmental health groups have dubbed vinyl the "poison plastic," due to its harmful production process and its effects on humans. Vinyl is laced with phthalates, chemical plastic softeners linked to hormone disruption, stunted growth, obesity, and other health problems, as well as low IQs. Better Alternative: When it's time to replace flooring in your home, opt for wood, bamboo, or cork that's Forest Stewardship Council (FSC) certified or for real linoleum, instead of vinyl. Avoid plastic shower-curtain liners, as well as fake leather furniture, clothing, and accessories, to cut down on phthalate exposure. (Try hemp or organic cotton shower curtains.)

Antibacterial Soap, Gels: The antimicrobial chemical triclosan, used in some toothpastes and antibacterial soaps, is believed to disrupt thyroid function and hormone levels in people; when it

mixes into wastewater, it can cause sex changes in aquatic life. Better Alternative: Good old-fashioned soap and warm water will kill just as many germs

Synthetic Fragrances: Fragrance may be the most common type of chemical in your house. Used in laundry detergents, fabric softeners, dryer sheets, cleaning supplies, disinfectants, air fresheners, deodorizers, shampoos, hair sprays, gels, lotions, sunscreens, soaps, perfumes, powders, and scented candles—and dozens of other products you may not know about—fragrances are a class of chemicals that are well worth the time and effort to avoid. The term "fragrance" or "parfum" on personal-care-product labels can be a cover for hundreds of harmful chemicals known to be carcinogens, endocrine disruptors, and reproductive toxicants, even at low levels. Better Alternative: Go the unscented route whenever possible, especially with soaps and detergents.

Dioxin: Found in animal fatty tissue. It is linked to lower sperm count and other reproductive system effects. Chronic exposure to dioxins has been linked to immunological problems and cancer.

Atrazine: Could cause tumors, delayed puberty and prostate inflammation.

Perchlorate: found in many produce and milk products. Affects the ability of the thyroid gland to make hormones.

Polybrominated diphenyl ethers (PBDEs) or Fire retardants: disrupt thyroid activity, and lowers IQ.

Perfluorinated chemicals (PFCs): found in no-stick cookware. linked to lower sperm quality, low birth weight and thyroid disease.

Arsenic: Enters through pesticides. Increases risks of bladder, lung and skin cancers.

Glycol ethers: Used as solvents in paints and cleaning products; lowers sperm count, aggravates asthma and allergies in children

Ammonia can trigger asthma attacks, and harsh oven cleaners and drain openers can cause respiratory damage or burn the skin of children who come into contact with them. Better Alternative: Save tons of money by turning to Grandma's homemade cleaning concoctions, including a general cleaning solution of one part white vinegar and nine parts water. This will kill up to 90 percent of bacteria and many spores.

Phthalate & DEHP, which is also used in PVC, and is a carcinogen. Phthalate are plasticizing chemicals used in everything from pesticides and fragranced soaps and shampoos to nail polish and vinyl shower curtains. Phthalate exposure, even in small amounts, has been linked to behavioral

problems in children, allergies and asthma, eczema, and unhealthy changes in our hormonal systems.

Polyvinyl chloride or PVC, is often dubbed the most toxic plastic on the planet because of all the harmful vinyl chemicals used to manufacture it and the ones released during its use and disposal.

Diisononyl phthalate (DiNP): A vinyl chemical called diisononyl phthalate (DiNP), the chemical used to keep PVC flexible and pliable (think shower curtains and garden hoses), has just been dubbed a carcinogen by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment.

Brominated Flame Retardants: Over the long term, children born to mothers with high levels of these chemicals in their bodies have lower IQs and perform more poorly in mental and physical development testing. They're found in furniture, electronics, certain sodas and sports drinks, and even household dust. Avoid furniture that meets California's TB117 law, a regulation that promotes the use of flame retardant chemicals. Be diligent about wet-mopping in the house and use a HEPA-filter-equipped vacuum to reduce flame retardant-laced dust. Opt for natural flooring materials, not carpeting and carpet padding, which could harbor flame retardants.

Bisphenol A: Pre-pregnancy exposure to even tiny doses of hormone-disrupting chemicals could irreversibly alter a child's health. BPA is a hormone-disrupting chemical linked to male infertility, diabetes, heart disease, aggressive behavior in children, and other ills. Bisphenol A (BPA) and phthalates are prime suspects linked to social and aggression problems in children, along with stunted growth, learning disabilities, and lower IQ. These chemicals are used in hundreds of everyday products, including soaps, shampoos, cleaners, and air fresheners. Keep BPA out of your system. Avoid canned foods and beverages, as well as No. 7 plastics. To reduce phthalate exposure, cut off scented candles and air fresheners, and avoid personal care products that list "parfum" or "fragrance" as an ingredient. Opt for fresh or frozen fruits and veggies, and bypass cans as often as possible. Don't store or microwave food or beverages in plastic containers.

Flame-retardant chemicals can be found in electronics, carpets, carpet padding, and furniture foam. They've been associated with a wide range of health problems, including infertility, thyroid problems, learning disabilities, and hormone disruption. Better Alternative: When shopping for new furniture, call the manufacturer and ask if it contains flame retardants. If you see a tag that says "complies with California Technical Bulletin 117," avoid bringing home that piece of furniture

OUTDOOR CHEMICALS

Air Pollution: Recent studies link air pollution from vehicle exhaust to memory problems, brain damage, and an increased risk of autism. A prior study found that children born to women living within 1,000 feet of major highways are twice as likely to be diagnosed with autism years later. Drive less or carpool to cut back on air pollution, commute during less busy hours, and if you live close to a major roadway, consider investing in a high-quality air purifier that does not produce ozone.

VOCs: Nasty indoor air-polluting culprits, volatile organic compounds, or VOCs, could be trashing your indoor air, especially in the kitchen, the basement, or even the laundry room. (Scented, petroleum-based laundry detergents contain high levels of VOCs.) These hazardous chemicals are linked to asthma and, in some instances, even cancer, and they add to indoor air pollution. Pressed wood and particleboard cabinets and other furniture are big emitters of the VOC (and carcinogen) formaldehyde in the home, too. Choose unscented, plant-based detergents, or go old-school and use castile soap or washing soda and borax to clean your clothing. For new paint projects, choose readily available no-VOC paint

Synthetic Pesticides: Chemical weed, fungus, and bug killers all fit under this category and should be avoided both inside and outside of your house. Researchers have linked these pesticides to various forms of cancer, including non-Hodgkin's lymphoma; insecticides have been connected to brain damage in kids. Better Alternative: Combating an indoor bug problem is as simple as cleaning up crumbs, sealing food in containers, and using wood shims and a caulking gun to fill pest entry points.

Coal Tar Driveway Sealant: If you plan to seal your blacktop driveway, avoid coal tar-based sealants. They contain polycyclic aromatic hydrocarbons, or PAHs, toxic compounds shown to cause cancer or other genetic mutations. When rainwater and other precipitation hit your driveway, the toxic chemicals run off into your yard and into your local drinking water supply. Better Alternative: Gravel and other porous materials are best for driveways because they allow rainwater to sink into the ground, where it gets filtered and doesn't inundate water treatment plants.

Polycyclic Aromatic Hydrocarbons (PAHs): This carcinogen is formed when meat is burned. PAHs are also among a category of 10,000 chemicals created from the burning of oil, garbage, coal, or wood. The compounds can damage DNA, hamper normal development, and impair fetal growth. Aside from burned meat, BBQ, Grilled meats, PAHs are abundant in coal-tar-based driveway sealants and anti-dandruff shampoos, cigarette smoke, and mothballs. Eat less meat. Opt for nontoxic mothball alternatives, avoid cigarette smoke, and look for safer driveway sealants that are free of coal-tar ingredients.

MEDICAL

Oxybenzone: It is an active ingredient in many sunscreens and is a hormone disruptor. Buy sunscreen without them.

Thalidomide: Not commonly used in the U.S, this sedative drug has been linked to an increase in autism and other birth defects.

Valproic acid: This medication is used to control epilepsy and is known to cause increased autism risk.

Prenatal rubella infection: A woman infected while pregnant also faces a higher risk of having a child with other developmental problems, eye problems, deafness, or heart problems.

Source: Rodale news and Jessica Alba's fact-filled book, The Honest Life, for easy ways to detox your cleaning, shopping, and cosmetics routines, too; Rodale news; <http://www.ewg.org/>; Livescience, Other