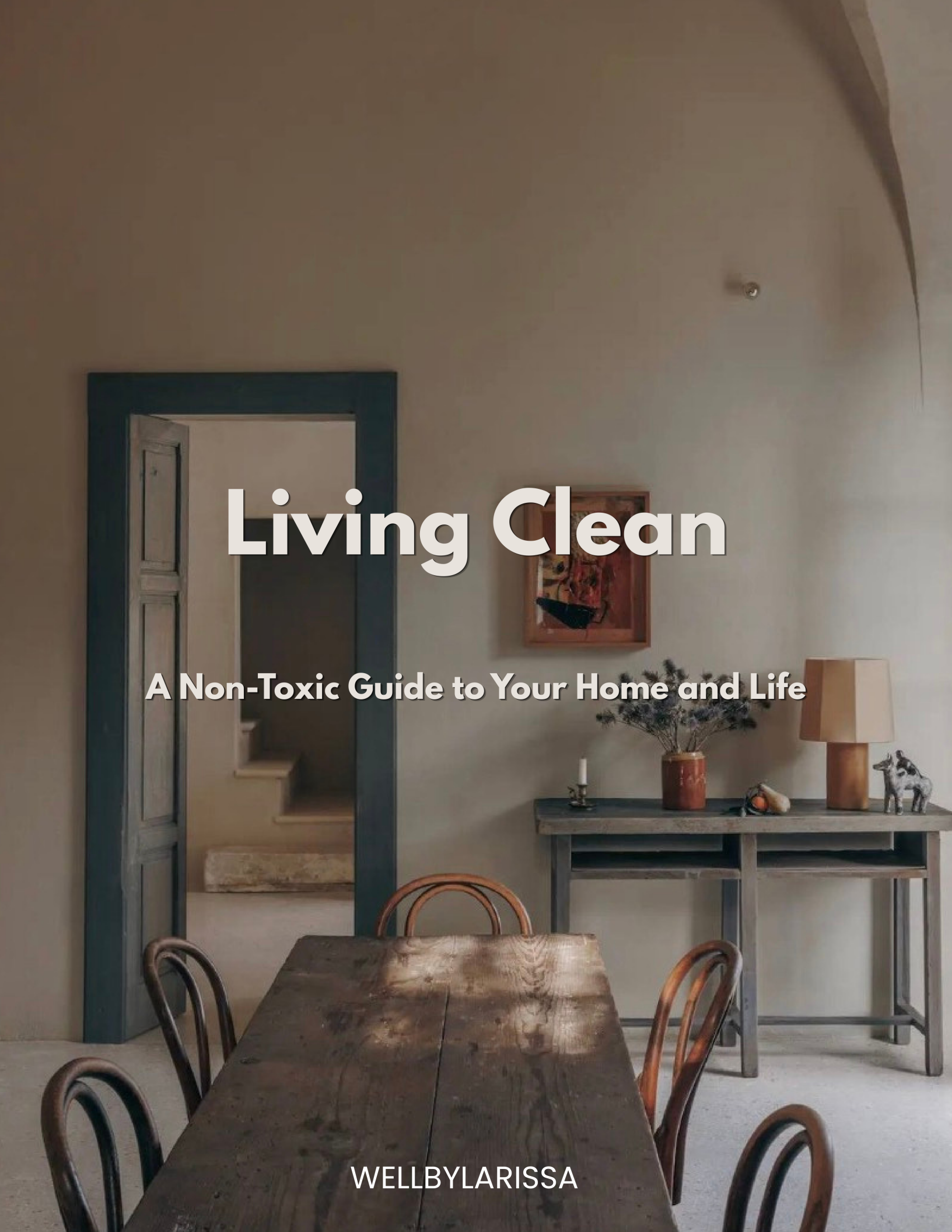




Living Clean

A Non-Toxic Guide to Your Home and Life

WELLBYLARISSA

Before We Begin

This guide was not written to scare you. It was written to simplify something that has become unnecessarily complicated.

Non-toxic living is not a personality. It is not perfection. It is not about throwing everything away and spending thousands of dollars replacing it all at once. It is about making better choices, one by one, as you run out of things, as you learn more, and as you understand what is actually worth your attention.

The toxic load that most people are carrying daily is not the result of one product or one habit. It is the accumulation of hundreds of small exposures across every area of life. The cookware, the cleaning products, the personal care routine, the candles, the fabric of the sheets, the phone on the nightstand. None of them alone are catastrophic. Together, over years, they add up to something the body was never designed to process.

This guide walks through every major area of your home and life, what the research actually says, which ingredients and materials matter most, which swaps are the highest priority, and how to make this transition without overwhelm, without guilt, and without breaking the bank.

You do not need to be perfect. You just need to start. Every swap you make reduces your body's burden. That is enough.

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Introduction: The Body Burden Concept

Your body was designed to detoxify. Your liver, kidneys, skin, and lymphatic system run a continuous process of filtering and eliminating what does not belong. This system is remarkable. But it was designed for a world that no longer exists.

The average American is exposed to over 80,000 synthetic chemicals that did not exist a century ago. The vast majority have never been tested for safety in the quantities or combinations that people actually encounter them. They appear in food packaging, cleaning products, personal care items, furniture, clothing, building materials, and the air inside most homes. The EPA consistently finds that indoor air is 2 to 5 times more polluted than outdoor air, sometimes significantly more. The concept of body burden refers to the total accumulation of toxic substances in human tissue at any given time. Studies measuring body burden in the general population consistently find hundreds of synthetic chemicals present in blood, fat tissue, urine, and breast milk, including chemicals that have been banned for decades. The body stores what it cannot eliminate. Over years, this accumulation affects hormonal signaling, immune function, neurological health, fertility, and cellular integrity.

THE MOST IMPORTANT THING TO UNDERSTAND

You do not need to eliminate all exposure to every chemical. That is impossible. The goal is to reduce your overall body burden by making strategic swaps in the areas that matter most. Each reduction gives your liver and detox pathways more capacity to deal with what remains. Small consistent changes add up to a genuinely different toxic load over months and years.

Why Women and Children Are Most Affected

Endocrine disrupting chemicals, the category of synthetic compounds that interfere with hormone signaling, disproportionately affect women and children. Estrogen-mimicking compounds like parabens, phthalates, and BPA bind to hormone receptors and disrupt the delicate feedback loops that govern the menstrual cycle, thyroid function, adrenal output, and fertility. Children are more vulnerable because their detox pathways are not fully developed and because they are in critical developmental windows where chemical exposure has outsized effects on the nervous system, immune system, and reproductive organs.

This is not a reason for panic. It is a reason for priority. The chapters that follow are organized to help you identify the highest-impact areas first and work through them at a pace that is sustainable.

The Priority Order

Not all swaps are equal. Some areas of your home and life carry far more toxic load than others. The general priority order for non-toxic living based on research into body burden and chemical exposure is:

1. Personal care products used daily on skin (shampoo, moisturizer, deodorant, makeup) because skin absorption bypasses the liver entirely
2. Cookware and food storage because toxins that enter via food go directly into the gut
3. Cleaning products because they enter the body through inhalation and skin contact and affect indoor air quality for hours after use
4. Bedding and sleepwear because you spend 8 hours in direct skin contact with them every night
5. Candles and air fresheners because they are the most underestimated source of indoor air pollution in most homes
6. Clothing, especially synthetic activewear and underwear worn close to the body
7. EMF and digital exposure because it is pervasive, invisible, and almost entirely unaddressed in mainstream wellness

The question is never whether a chemical is present. It is whether your body has the capacity to handle it. Reduce the load and the body does the rest.

Chapter 1: The Kitchen



The kitchen is where non-toxic living either begins or falls apart. The foods you buy matter enormously, but so does every surface those foods touch during preparation, cooking, and storage. Heat accelerates chemical leaching. Acid foods draw out heavy metals. Plastic containers off-gas into whatever they hold. Most people are adding a layer of chemical exposure to every meal they prepare without knowing it.

Cookware: The Most Important Swaps

Teflon and other non-stick coatings contain PFAS (per and polyfluoroalkyl substances), also called forever chemicals. When non-stick cookware is heated above 500 degrees Fahrenheit, which happens during normal cooking, it releases toxic fumes that have been shown to kill birds and cause flu-like symptoms in humans. The coating itself degrades over time, releasing particles into food. PFAS accumulate in the body and have been linked to thyroid disruption, immune suppression, hormonal dysregulation, and certain cancers.

✗ AVOID	✓ USE INSTEAD
Non-stick / Teflon pans	Cast iron (naturally non-stick when seasoned)
Aluminum cookware	Stainless steel (18/10 grade)
Non-stick baking sheets	Unbleached parchment paper on stainless
Scratched or old non-stick	Carbon steel pan
Non-stick coated Dutch ovens	Enameled cast iron (Le Creuset, Lodge)

CAST IRON NOTE

Cast iron takes some getting used to but it is one of the most durable, naturally non-stick, and chemical-free cooking surfaces available. A well-seasoned cast iron skillet will outlast every non-stick pan you will ever own. Season it with lard or tallow for the best results and the most ancestral approach.

Food Storage: Ditch the Plastic

Plastic food containers leach BPA and its replacements (BPS, BPF) into food, especially when heated. Even BPA-free plastics have been shown to contain other endocrine disrupting compounds. Plastic wrap placed directly on food or used in the microwave is particularly problematic. Plastic water bottles exposed to heat (like those left in a hot car) leach dramatically higher levels of compounds into the water.

✗ AVOID	✓ USE INSTEAD
Plastic food containers	Glass containers with glass or stainless lids
Plastic wrap	Beeswax wraps or silicone covers
Plastic water bottles	Stainless steel or glass bottles
Plastic zip bags	Reusable silicone bags or glass jars
Styrofoam or plastic takeout containers	Transfer to glass as soon as you get home

Cutting Boards: Ditch the Plastic

Plastic cutting boards are one of the most overlooked sources of microplastic ingestion in the kitchen. A 2023 study estimated that a plastic cutting board can shed up to 50 million microplastic particles into food annually. These particles enter the digestive system and have been found in human blood, lung tissue, and the placenta. Beyond microplastics, plastic boards develop deep knife grooves over time that harbor bacteria in a way that cannot be fully cleaned, even in a dishwasher.

The ancestral and the scientifically sound answer is the same one: wood. Wood cutting boards have been used for thousands of years and for good reason. Hardwood has a natural antimicrobial property that pulls bacteria down into the grain where they cannot reproduce and eventually die. A well-maintained wood board is more hygienic than a plastic one, not less.

The Best Wood Types for Cutting Boards

- Maple: the gold standard for cutting boards. Hard maple (also called sugar maple) is dense, tight-grained, and durable. It is gentle on knife edges, resists moisture absorption, and is the most widely used wood in professional kitchens. If you buy one cutting board, buy maple.
- Walnut: slightly softer than maple which makes it even kinder on knife edges. Beautiful dark color, tightly grained, and naturally antimicrobial. More expensive than maple but a lifetime investment if cared for properly.
- Teak: naturally high in silica and oil content which makes it extremely water-resistant and low-maintenance. Good for occasional use but harder on knife edges than maple or walnut due to its mineral content.
- Cherry: medium hardness, beautiful color that deepens with age, and a fine grain that resists bacteria well. A classic American hardwood and a beautiful addition to any kitchen.
- Acacia: widely available and affordable. Harder than maple which can dull knives faster, and because it is often made from multiple pieces glued together, more prone to warping if not dried properly after washing. A decent entry-level option.

What to Avoid in Wood Cutting Boards

- Bamboo: often marketed as natural and sustainable but is technically a grass, not a wood. It is extremely hard and will dull your knives quickly. Most bamboo boards are held together with formaldehyde-based glues. It is not the clean ancestral option it appears to be.
- Glass or ceramic boards: completely destroy knife edges and are one of the worst surfaces to cut on despite looking clean and modern.
- Composite or resin boards: made from compressed wood particles and synthetic binders. Off-gas VOCs and shed particles similarly to plastic.

How to Clean and Care for a Wood Cutting Board

A wood cutting board properly cared for will last decades and improve with age. Here is the complete care routine:

1. After each use: rinse with hot water and scrub with a stiff brush. Do not soak in water and do not put in the dishwasher. Prolonged water exposure causes wood to warp and crack.
2. For deep cleaning and deodorizing with baking soda: sprinkle a generous layer of baking soda over the entire board surface. Cut a lemon in half and use the cut side to scrub the baking soda into the board in circular motions. The lemon provides natural antimicrobial action and removes odors while the baking soda provides gentle abrasion and neutralizes acids. Rinse with hot water and stand upright to dry.
3. For sanitizing: spray or wipe undiluted white vinegar over the surface, let sit 5 minutes, then rinse. Follow with a hydrogen peroxide spray if needed for stubborn odors or staining. Do not combine vinegar and hydrogen peroxide while both are wet on the surface.
4. Monthly oiling: apply a generous coat of food-grade mineral oil, raw beeswax board cream, or fractionated coconut oil to all surfaces including the underside and edges. Let absorb for several hours or overnight, then wipe off the excess. This prevents the wood from drying, cracking, and absorbing bacteria.
5. When to replace: a wood board that has been properly maintained never truly needs replacing. Surface scratches can be sanded smooth with fine sandpaper and re-oiled. A plastic board with deep grooves should be replaced immediately.

THE BAKING SODA METHOD IN DETAIL

Sprinkle baking soda generously over the board. Add a few drops of dish soap if desired. Scrub vigorously with a damp cloth, brush, or lemon half. The baking soda neutralizes odors, gently abrades stains, and lifts bacteria from the grain. Rinse thoroughly with hot water. Stand the board on its edge to air dry rather than laying flat, which traps moisture underneath.

✗ AVOID	✓ USE INSTEAD
Plastic cutting board (microplastics)	Hard maple cutting board
Thin flexible plastic cutting sheets	Organic cotton kitchen towel or maple board
Bamboo board with formaldehyde glue	Single-piece walnut or maple board
Glass or ceramic cutting board	Cherry or walnut hardwood board
Composite resin board	End-grain maple board for heavy chopping

Water Filtration



Tap water in most municipalities contains chlorine, chloramines, fluoride, heavy metals including lead, and increasingly, pharmaceutical residues and PFAS. A basic Brita filter removes very little. Here is what the different filter types actually do:

- Reverse osmosis: removes up to 99% of contaminants including PFAS, heavy metals, fluoride, nitrates, and most pharmaceuticals. The gold standard. Remineralize the water afterward with a pinch of sea salt or mineral drops.
- Whole house carbon filter: removes chlorine and chloramines, improves taste and smell, protects skin and lungs during showering. Install before the water heater.
- Shower filter: removes chlorine absorbed through skin and inhaled as steam. One of the most impactful and affordable single swaps.
- Berkey filter: gravity-fed, removes most contaminants, no electricity required, excellent for renters.
- Standard pitcher filters: remove chlorine and improve taste but do not remove PFAS, heavy metals, or fluoride.

Dish Soap and Kitchen Cleaners

Most conventional dish soaps contain synthetic fragrances (a blanket term that can cover hundreds of undisclosed chemicals), sulfates, preservatives like methylisothiazolinone, and dyes. They leave residue on dishes and cookware that transfers to food with every meal.

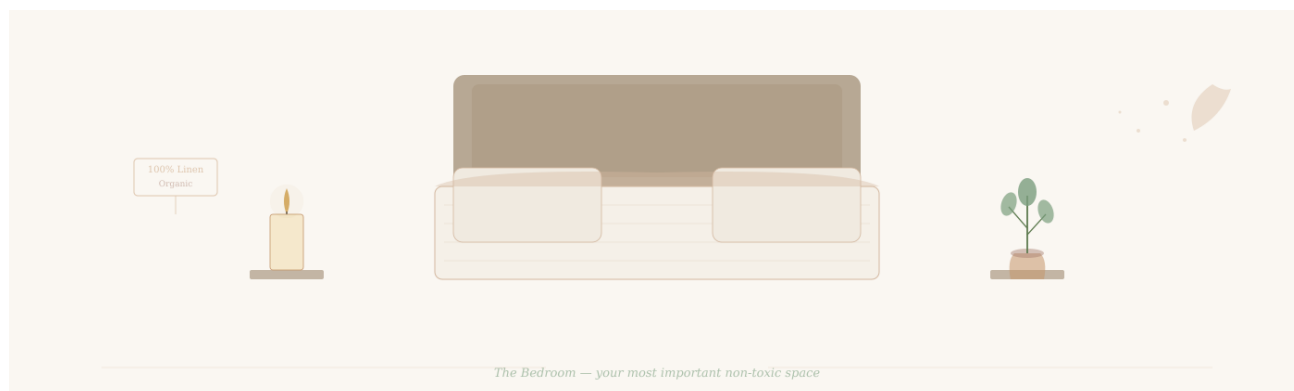
✗ AVOID	✓ USE INSTEAD
Conventional dish soap with fragrance	Branch Basics, Dr. Bronner's, or Sal Suds
Antibacterial dish soap with triclosan	Plain castile soap with tea tree essential oil
Commercial kitchen sprays	White vinegar and water with essential oils
Commercial oven cleaners (highly toxic)	Baking soda paste left overnight, wiped clean
Scented dish pods	Fragrance-free pods or DIY powder

What to Avoid in Packaged Food

Non-toxic living extends to what is inside the food, not just what the food touches. These are the ingredients most worth avoiding in packaged and processed foods:

- ✗ Seed oils: soybean, canola, corn, sunflower, cottonseed, safflower. These are highly processed, oxidize easily during cooking, and are linked to systemic inflammation.
- ✗ Artificial colors: FD&C Red 40, Yellow 5, Yellow 6, Blue 1. Synthetic petroleum-derived dyes linked to hyperactivity and immune disruption.
- ✗ Carrageenan: a thickener found in many organic and natural products that causes intestinal inflammation.
- ✗ Sodium nitrite in processed meats: converts to nitrosamines during cooking, which are carcinogenic.
- ✗ High fructose corn syrup and its variants.
- ✗ Natural flavors: a loophole term that can include hundreds of synthetic compounds.
- ✗ TBHQ, BHA, BHT: petroleum-derived preservatives used in oils, chips, and cereals.

Chapter 2: The Bedroom



You spend approximately one third of your life in your bedroom. More than anywhere else in your home, the bedroom is where long-term toxic exposure accumulates most significantly. You breathe the air, sleep on the surfaces, and absorb through your skin every substance your bedding contains for eight consecutive hours every night. This is the second most important room in your home after the kitchen.

Mattresses and Off-Gassing

Conventional mattresses are made with polyurethane foam, which is derived from petrochemicals and releases volatile organic compounds (VOCs) for months to years after manufacture. Most mattresses sold in the US are required to meet flammability standards, which manufacturers achieve by treating the foam with chemical flame retardants, primarily polybrominated diphenyl ethers (PBDEs) or newer chemical alternatives. PBDEs are persistent endocrine disruptors that accumulate in fat tissue and have been found in human breast milk.

✗ AVOID	✓ USE INSTEAD
Polyurethane foam mattress	GOTS-certified organic latex or wool mattress
Memory foam with chemical flame retardants	Avocado Green, Saatva Organic, or Naturepedic
Conventional mattress cover	Organic cotton or wool mattress protector
Synthetic memory foam pillow	Buckwheat, organic latex, or wool pillow
Conventional foam mattress topper	Natural latex or organic wool topper

BUDGET APPROACH

If replacing your mattress is not possible right now, start with an organic cotton or wool mattress encasement and open your bedroom windows daily to reduce off-gas accumulation. This is meaningful harm reduction without the full cost of a new mattress.

Bedding and Natural Fibers



Most conventional bedding is made from polyester or polyester blends, which are plastic fibers derived from petroleum. They off-gas synthetic chemicals, trap heat, are not breathable, shed microplastics with every wash, and contain finishing treatments including formaldehyde-releasing agents that keep them wrinkle-free in the packaging.

✗ AVOID	✓ USE INSTEAD
Polyester sheets and pillowcases	100% linen or GOTS organic cotton
Microfiber duvet insert	Wool or organic cotton duvet
Synthetic foam pillow	Buckwheat hull or organic kapok pillow
Conventional blanket with synthetic fill	Wool blanket or organic cotton quilt
Polyester mattress pad	100% organic wool or cotton mattress pad

Natural Fibers Explained

Linen

Made from the flax plant, linen is one of the oldest textile fibers in the world with records of use going back 30,000 years. It is naturally antibacterial, temperature-regulating (cool in summer, warm in winter), hypoallergenic, and becomes softer with every wash. It requires far less water and pesticide than cotton to produce. This is the ancestral bedding choice for most of the world.

Organic Cotton

Conventional cotton is one of the most heavily pesticide-sprayed crops on earth. Organic cotton eliminates that chemical burden. GOTS (Global Organic Textile Standard) certification ensures the entire supply chain, from field to finished textile, meets organic standards. Look for GOTS certification specifically, not just the word organic on the label.

Wool

Naturally flame-retardant without any chemical treatment, temperature-regulating, moisture-wicking, and antimicrobial. Wool bedding is the only material that is both a natural flame retardant and deeply breathable. It is particularly excellent for people who sleep hot or sweat at night.

Silk

Naturally hypoallergenic, temperature-regulating, and made entirely from protein fibers similar to human skin and hair. Particularly beneficial for those with eczema, allergies, or sensitive skin. A silk pillowcase is one of the most impactful and accessible natural fiber swaps you can make this week.

Candles and Air Quality



Paraffin candles, which represent the vast majority of candles sold commercially, are made from petroleum byproduct. When burned they release benzene, toluene, and other VOCs at concentrations comparable to vehicle exhaust. The synthetic fragrance compounds used in most candles add another layer of chemical inhalation. A single scented paraffin candle can meaningfully degrade the indoor air quality of a room within minutes.

✗ AVOID	✓ USE INSTEAD
Paraffin candle with synthetic fragrance	100% beeswax candle with essential oils
Soy candle (often a paraffin blend)	Pure coconut wax or beeswax candle
Commercial air freshener spray	Diffuser with pure essential oils
Synthetic wax melts and warmers	Dried herbs or wood essential oil diffuser
Scented drawer sachets	Dried lavender, cedar, or rosemary sachets

BEESWAX NOTE

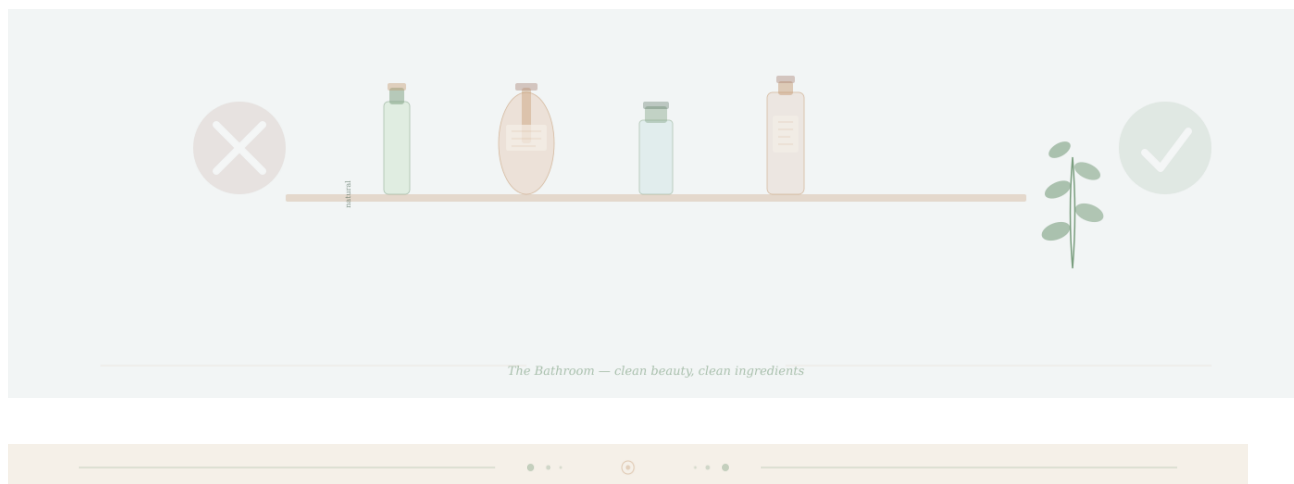
Beeswax candles are the only candles that actually purify air as they burn. They release negative ions that bind to airborne particles including dust, mold spores, and pollutants and pull them out of the air. This is the ancestral candle and the only one worth burning in your bedroom.

Laundry: The Hidden Exposure

Your clothes and bedding absorb whatever detergent and fabric softener residue remains after washing, which is then in contact with your skin for hours. Conventional fabric softeners and dryer sheets coat fibers with a thin layer of quaternary ammonium compounds (quats) and synthetic fragrances, both of which are associated with respiratory irritation, hormonal disruption, and skin sensitization.

✗ AVOID	✓ USE INSTEAD
Commercial laundry detergent with fragrance	Branch Basics, Molly's Suds, or soap nuts
Fabric softener	Half cup of white vinegar in the rinse cycle
Dryer sheets	Wool dryer balls with a drop of lavender oil
Dryer sheets for static	Wool dryer balls, hang to dry, or metal safety pin
Bleach	Oxygen bleach (sodium percarbonate)

Chapter 3: The Bathroom and Personal Care



Personal care products represent the highest priority category for most people because they are applied directly to skin, which absorbs compounds into the bloodstream bypassing the liver's first-pass filtration. The average woman applies 168 chemicals to her body every morning before leaving the house. The average man applies 85. This is not an alarm. It is an opportunity.

The Ingredients to Know

These are the most commonly found and most impactful ingredients to eliminate from your personal care routine:

Parabens (methylparaben, propylparaben, butylparaben, ethylparaben)

Synthetic preservatives that mimic estrogen in the body. Found in shampoo, conditioner, lotions, makeup, and deodorant. Have been detected in breast cancer tissue. Look for any ingredient ending in -paraben.

Phthalates (DBP, DEHP, DEP)

Plasticizers used to make fragrance last longer and make products feel smooth. Potent endocrine disruptors affecting testosterone and estrogen. Hidden under the term fragrance on ingredient labels.

Synthetic Fragrance / Parfum

A single word that can represent a blend of up to 3,000 undisclosed chemicals protected as trade secrets. This is the most important ingredient to eliminate. Fragrance appears in shampoo, lotion, deodorant, cleaning products, and laundry detergent.

Sodium Lauryl Sulfate (SLS) and Sodium Laureth Sulfate (SLES)

Foaming agents that strip the skin and scalp of their natural oil barrier. SLS is a known irritant. SLES is processed with ethylene oxide (a carcinogen) and may be contaminated with 1,4-dioxane. Found in shampoo, body wash, toothpaste, and face wash.

Formaldehyde and Formaldehyde Releasers

A known carcinogen that is also a direct preservative or is released slowly by compounds including DMDM hydantoin, quaternium-15, imidazolidinyl urea, and diazolidinyl urea. Found in nail polish, hair straightening treatments, baby products, and many lotions.

Oxybenzone and Octinoxate

Chemical UV filters found in most conventional sunscreens. Both are endocrine disruptors that have been detected in human blood, urine, and breast milk after a single application. Oxybenzone in particular shows estrogenic activity and has been detected in 97% of Americans tested.

Triclosan

An antibacterial compound found in some soaps, toothpastes, and deodorants. Has been banned from many products but remains present in some. Disrupts thyroid hormone signaling and has contributed to antibiotic resistance.

Aluminum Compounds

Used in conventional antiperspirants to block sweat glands. Aluminum salts accumulate in tissue and have been found in breast tissue. Distinct from natural deodorants which do not contain aluminum and do not block sweat, only address odor.

Category by Category Swaps



Shampoo and Conditioner

✗ AVOID	✓ USE INSTEAD
Shampoo with SLS and synthetic fragrance	Rowe Casa, Innersense, or DIY castile shampoo
Conventional conditioner with silicones	Natural conditioner or raw shea butter rinse
Chemical hair treatments	Natural oils: argan, castor, rosemary for growth
Dry shampoo with aerosol propellants	Arrowroot powder or clean formula dry shampoo

Deodorant

✗ AVOID	✓ USE INSTEAD
Antiperspirant with aluminum	Aluminum-free natural deodorant
Deodorant with synthetic fragrance	Essential oil-based natural deodorant
Commercial deodorant with parabens	Primal Pit Paste, Native, or DIY baking soda blend

Sunscreen

✗ AVOID	✓ USE INSTEAD
Chemical sunscreen with oxybenzone	Zinc oxide mineral sunscreen only
Chemical sunscreen with octinoxate	Non-nano zinc oxide at 20% or higher
SPF makeup with chemical filters	Mineral SPF powder or clean SPF tinted moisturizer

Toothpaste and Oral Care

✗ AVOID	✓ USE INSTEAD
Toothpaste with SLS (causes canker sores)	Fluoride-free clay or hydroxyapatite toothpaste
Mouthwash with synthetic colors and alcohol	Oil pulling with coconut oil, salt water rinse
Whitening strips with peroxide chemicals	Activated charcoal or baking soda whitening

Feminine Care

✗ AVOID	✓ USE INSTEAD
Conventional tampons (chlorine-bleached cotton)	100% organic cotton tampons
Synthetic pads with plastic film layer	Organic cotton pads or period underwear
Conventional tampon with synthetic fragrance	Menstrual cup or organic disc

Conventional feminine care products are made from conventionally grown cotton, which is heavily sprayed with pesticides including glyphosate. They are then bleached with chlorine and often treated with synthetic fragrance. This matters because the vaginal mucosa is one of the most absorbent surfaces on the body with direct access to the bloodstream.





The cleaning products under most kitchen sinks represent some of the most acutely toxic chemicals found in the average home. Unlike personal care products, cleaning products are not required to list all their ingredients. Many contain compounds that are known respiratory irritants, hormone disruptors, and carcinogens. They enter the body primarily through inhalation during and after use, and through skin contact.

The Most Toxic Common Cleaners

- ✗ Bleach (sodium hypochlorite): a powerful respiratory irritant that reacts with other household chemicals to create toxic chlorine gas. Mixing bleach with ammonia or vinegar creates dangerous fumes. Bleach is one of the leading causes of household poisoning calls to poison control.
- ✗ Ammonia-based cleaners: found in glass cleaners and multi-surface sprays. Irritate the respiratory tract and are particularly harmful for those with asthma.
- ✗ Antibacterial sprays with quats (quaternary ammonium compounds): associated with respiratory issues, skin sensitization, and reproductive toxicity. Contribute to antibiotic resistance.
- ✗ Commercial oven cleaners: contain sodium hydroxide (lye) which causes chemical burns and releases toxic fumes in an enclosed space.
- ✗ Air fresheners and synthetic fragrances sprays: aerosol propellants plus synthetic fragrance compounds that degrade indoor air quality significantly.

The Non-Toxic Cleaning Toolkit

These five ingredients replace almost every cleaning product in your home and cost a fraction of commercial products:

- White distilled vinegar: cuts grease, kills most bacteria and mold, deodorizes, descales. Do not use on natural stone.
- Baking soda: gentle abrasive, deodorizes, whitens, neutralizes acid. Combine with vinegar for a fizzing action on tough spots.
- Castile soap: a true soap made from plant oils. Cuts grease and grime without synthetic surfactants.
- Hydrogen peroxide (3%): disinfects, whitens, and removes stains. Use in a dark bottle as it degrades in light.
- Essential oils: tea tree for antibacterial and anti-fungal action, lavender for fragrance and mild antibacterial properties, eucalyptus for respiratory-supporting cleaning.

Room by Room DIY Cleaning Recipes

All-Purpose Spray

6. Combine 1 cup water, 1 cup white vinegar, 15 drops tea tree oil, and 10 drops lavender in a glass spray bottle.
7. Shake before each use. Safe for most surfaces except natural stone and cast iron.

Bathroom Scrub

1. Combine 1 cup baking soda, 1/4 cup castile soap, and 10 drops tea tree oil.
2. Mix to a paste consistency adding water slowly. Apply with a cloth, scrub, and rinse. Keeps in a jar for 2 weeks.

Glass and Mirror Cleaner

1. Combine 2 cups water, 1/2 cup white vinegar, and 1/4 cup rubbing alcohol in a glass spray bottle.
2. Spray and wipe with a microfiber cloth or newspaper for streak-free results.

Toilet Cleaner

1. Pour 1/2 cup baking soda into the bowl. Add 1/4 cup hydrogen peroxide and 10 drops tea tree oil.
2. Let fizz for 10 minutes. Scrub with a brush and flush.

Oven Cleaner

1. Make a thick paste of baking soda and water. Spread over the oven interior avoiding the heating elements.
2. Leave overnight. The next day, spray with white vinegar and wipe clean. Repeat if needed.

x AVOID	✓ USE INSTEAD
Commercial multi-purpose spray	Vinegar and water with essential oils
Commercial bathroom cleaner	Baking soda paste with tea tree oil
Windex or glass cleaner	Vinegar, water, and alcohol spray
Commercial toilet bowl cleaner	Baking soda, hydrogen peroxide, tea tree
Bleach for mold	Hydrogen peroxide left for 10 minutes
Febreze or air freshener	Open windows, essential oil diffuser, beeswax candle
Dryer sheets	Wool dryer balls with essential oils
Commercial laundry detergent	Branch Basics concentrate or soap nuts

Chapter 5: Baby and Children

Children are not small adults when it comes to toxic exposure. Their blood-brain barrier is not fully developed, their detox pathways are immature, and pound for pound they absorb more of everything, including airborne chemicals and skin-applied products. The developmental windows of infancy and early childhood are when chemical exposure has the most significant and lasting effects on the nervous system, immune system, and hormonal development.

This chapter is not meant to create fear. It is meant to clearly identify the highest priority swaps for families with young children so the limited budget and energy of parenthood can be directed most effectively.

Baby Products: The Priority Swaps

✗ AVOID	✓ USE INSTEAD
Baby lotion with fragrance and parabens	Organic tallow balm or plain organic shea butter
Conventional baby wash and shampoo	Organic castile soap diluted 1:10 with water
Commercial baby wipes with synthetic fragrance	Organic cotton cloths with water, or unscented wipes
Diaper cream with zinc oxide in petroleum base	Organic coconut oil or tallow-based diaper balm
Baby powder with talc	Organic arrowroot powder
Conventional diapers (bleached, synthetic)	Organic cotton or bamboo diapers

THE MOST IMPORTANT THING FOR BABIES

The skin of a newborn is 30% thinner than adult skin and absorbs a dramatically higher percentage of whatever is applied to it. Keep it simple. The fewer ingredients the better. Organic tallow or shea butter is all most babies need. Fragrance in any baby product is never necessary and always a risk.

Children's Clothing and Flame Retardants

Children's sleepwear in the US is legally required to meet strict flammability standards. Most manufacturers meet this requirement with chemical flame retardants applied to the fabric, primarily organohalogen compounds that are persistent endocrine disruptors and neurotoxins. The exception is sleepwear made from inherently flame-resistant natural fibers, specifically wool and snug-fitting 100% organic cotton.

- Buy children's sleepwear in snug-fitting 100% organic cotton: snug fit is an alternative compliance path that does not require chemical treatment
- Wool sleepwear: naturally flame-resistant without any chemical treatment
- Avoid loose-fitting polyester sleepwear: requires the heaviest chemical treatment to meet standards
- Look for GOTS certification on all children's clothing when possible

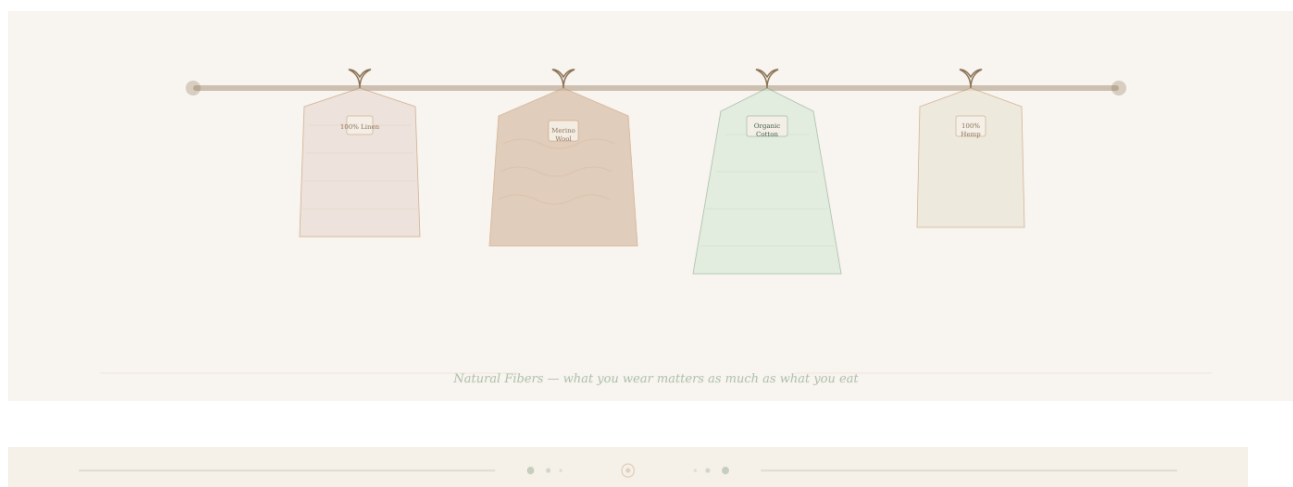
Toys and Plastics

✗ AVOID	✓ USE INSTEAD
Soft PVC plastic toys (contain phthalates)	Natural rubber, wood, or organic cotton toys
Plastic teethingers	Natural rubber teethingers (look for 100% natural rubber)
Plastic play mats with foam (EVA foam)	Organic cotton or wool play mat
Plastic water bottles and sippy cups	Stainless steel or glass with silicone tops
Non-stick baking sets for kids	Stainless steel or silicone baking tools

School Supplies

- Avoid scented markers, crayons, and school supplies. Fragrance in children's products often contains phthalates.
- Choose soy or beeswax crayons over conventional paraffin crayons.
- Use stainless steel or glass water bottles for school.
- Pack lunch in stainless steel bento boxes rather than plastic containers.
- Choose backpacks made from canvas or recycled materials rather than PVC-coated synthetic fabrics.

Chapter 6: Clothing and Natural Fibers



The clothing industry is one of the most chemically intensive on earth. Synthetic fabrics are made from petroleum-derived polymers. They are treated with finishing chemicals to achieve desired properties including wrinkle resistance, water repellency, stain resistance, and color fastness. These chemicals do not fully wash out and are in continuous contact with your skin. Synthetic activewear, in particular, is worn close to the body during exercise when pores are open and skin absorption is highest.

Synthetic Fabrics and What They Do

Polyester

Derived from petroleum. Does not breathe, traps heat and moisture, harbors bacteria and odor, sheds microplastic particles with every wash that accumulate in waterways and have been found in human blood and lung tissue. Most activewear and fast fashion is polyester.

Nylon

Also petroleum-derived. Used in hosiery, activewear, and linings. Contains processing chemicals and sheds microplastics.

Rayon / Viscose / Modal

Made from wood pulp processed with toxic chemicals including carbon disulfide and sodium hydroxide. Marketed as a natural fiber because it originates from plant material, but the processing is highly chemical-intensive.

Acrylic

Synthetic fiber that mimics wool. Made from acrylonitrile, a suspected carcinogen. Sheds microplastics heavily and does not biodegrade.

Natural Fibers: The Full Guide

Linen

The most ancestrally ancient textile. Made from flax, which requires minimal water and no pesticides to grow. Naturally antibacterial, temperature-regulating, hypoallergenic, and gets softer with every wash. Ideal for summer clothing, bedding, and everyday wear.

Organic Cotton

Look for GOTS certification. Breathable, soft, widely available. Conventional cotton uses 16% of the

world's insecticides and 7% of its pesticides despite covering only 2.5% of cultivated land. The organic version eliminates this chemical burden entirely.

Merino Wool

Naturally temperature-regulating from 40 degrees to 100 degrees Fahrenheit, odor-resistant (can be worn multiple times between washes), naturally flame-retardant, biodegradable, and renewable. Excellent for activewear, base layers, and socks. One of the highest performance natural fibers available.

Hemp

One of the most sustainable fabrics on earth. Hemp requires no pesticides, improves soil health, grows quickly, and produces a strong, breathable, naturally UV-resistant fiber. Gets softer with wear. Often blended with organic cotton for a softer hand feel.

Silk

A protein fiber produced by silkworms. Naturally hypoallergenic, temperature-regulating, and deeply breathable. Exceptional for sensitive skin. Particularly valuable as a pillowcase for skin and hair health.

Alpaca

Naturally lanolin-free (making it suitable for those with wool sensitivities), incredibly soft, warmer than wool, and produced without chemicals. An excellent alternative to merino for those who react to wool.

Practical Swaps and Transition Strategy

You do not need to replace your entire wardrobe. The highest priority pieces to swap first are the ones in closest contact with your body for the longest time:

- Underwear and bras: switch to organic cotton first. These are in contact with some of the most absorbent and hormone-sensitive tissue in the body.
- Activewear: consider merino wool alternatives for low-intensity exercise. For high-intensity, look for recycled materials at minimum.
- Sleepwear: organic cotton or merino wool. You wear these for 8 hours in close contact.
- Socks: merino wool or organic cotton. Feet are absorbent and often overlooked.
- Outerwear and non-skin-contact layers: lower priority. Replace as needed with natural alternatives.

FINISHING CHEMICALS NOTE

Even natural fiber clothing can be treated with chemical finishes. Look for GOTS certification which prohibits harmful finishing chemicals. Wash new clothing twice before wearing to remove as much chemical residue as possible.

Chapter 7: Air and Water Quality

Indoor air quality is consistently rated by the EPA as one of the top five environmental health risks, yet it is almost entirely absent from mainstream wellness conversation. Most people spend 90% of their time indoors breathing air that contains a complex mixture of VOCs from building materials, furniture, cleaning products, candles, cooking, and off-gassing synthetic materials. The accumulation of these compounds in a sealed, climate-controlled modern home creates a toxic soup that the respiratory system was never designed to handle continuously.

Sources of Indoor Air Pollution

- ✗ VOCs from furniture, flooring, and building materials: formaldehyde from pressed wood furniture, particle board, and laminate flooring. Off-gasses for years.
- ✗ Scented products: candles, air fresheners, fabric softener sheets, dryer vents. Synthetic fragrances are a major contributor to indoor VOC load.
- ✗ Cooking fumes: especially from high-heat cooking with seed oils, which oxidize and release aldehydes. Always ventilate during cooking.
- ✗ Mold and mycotoxins: particularly in bathrooms, basements, and around HVAC systems. One of the most significant and under-diagnosed indoor air health issues.
- ✗ Cleaning product residues: many commercial cleaners continue off-gassing hours after use.
- ✗ Paint and finishes: conventional paints contain VOCs. Look for zero-VOC options.

Improving Indoor Air Quality

- Open windows for at least 15 to 30 minutes daily even in winter. Cross ventilation moves stale air out and fresh air in faster than running a fan alone.
- Run the kitchen exhaust fan while cooking, especially when using high heat.
- Keep a HEPA air purifier running in the bedroom and any room where you spend significant time. Replace filters on schedule.
- Remove shoes at the door. Shoes track in pesticides, heavy metals, and bacteria from outside.
- Avoid synthetic candles, plug-in air fresheners, and heavily fragranced cleaning products.
- Have your home tested for mold if you notice musty odors, water damage, or unexplained respiratory symptoms.
- Replace conventional furniture with solid wood, natural fiber upholstery, and low-VOC finishes when possible. Prioritize bedrooms.

Houseplants and Air Quality

A famous NASA study identified houseplants that filter specific VOCs from indoor air. While the effect is modest in real-world conditions, plants do contribute to air quality improvement, increase humidity, and have documented effects on stress reduction and cognitive performance. The most effective air-filtering plants include:

- Peace lily: filters benzene, formaldehyde, trichloroethylene, xylene, and ammonia
- Spider plant: filters formaldehyde and xylene
- Pothos: filters benzene, formaldehyde, and toluene, and is nearly impossible to kill
- Snake plant (mother-in-law's tongue): releases oxygen at night making it ideal for bedrooms
- English ivy: reduces airborne mold particles

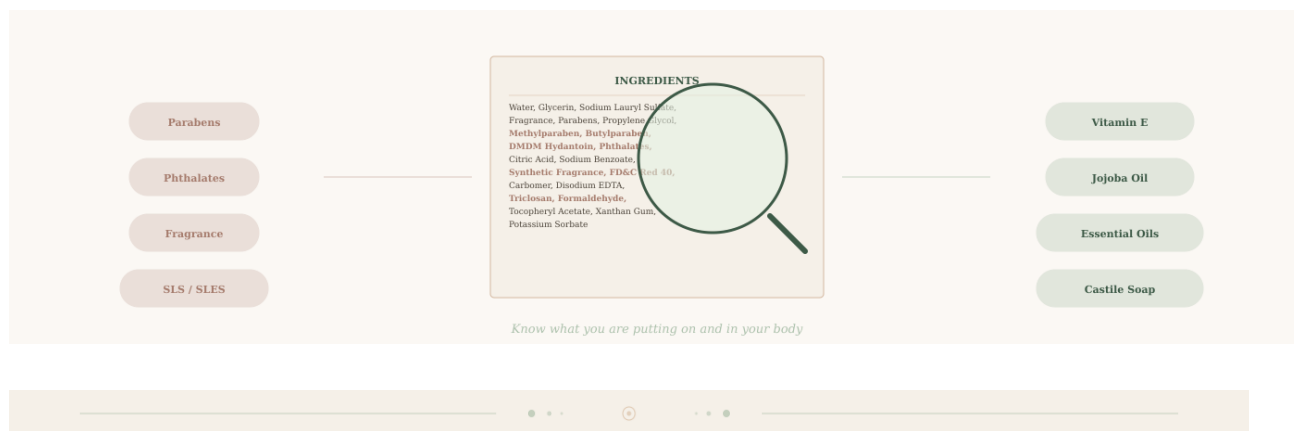
- Aloe vera: filters formaldehyde and benzene, and doubles as a natural skin treatment

Water Quality and Filtration

Most municipal water supplies contain chlorine or chloramines added as disinfectants, fluoride, heavy metals from aging pipes including lead, pharmaceutical residues that pass through wastewater treatment plants, agricultural runoff including nitrates and pesticides, and increasingly, PFAS (forever chemicals). A 2023 USGS study found PFAS in approximately 45% of tap water samples tested across the US.

x AVOID	✓ USE INSTEAD
Unfiltered tap water for drinking	Reverse osmosis or Berkey filter
Unfiltered tap water for cooking	Filtered water for all cooking use
Standard showerhead	Shower filter (carbon or KDF filter)
Plastic pitcher filter (Brita basic)	Reverse osmosis system or Berkey
Bottled water in plastic	Glass or stainless steel bottle with filtered water

Chapter 8: The Ingredients to Always Avoid



This chapter is your master reference. Bookmark it, screenshot it, and take it shopping with you. These are the ingredients found across personal care, cleaning, food, and household products that have the strongest evidence for harm and that are worth avoiding consistently across every category.

You cannot memorize every harmful ingredient. Start with this list and let it become second nature over time. Even eliminating a few of these from your daily routine meaningfully reduces your body burden.

Parabens

Also listed as: *methylparaben, ethylparaben, propylparaben, butylparaben*

Estrogen-mimicking preservatives. Found in shampoo, lotion, makeup, and deodorant. Detected in breast cancer tissue.

Phthalates

Also listed as: *DBP, DEHP, DEP, hidden in fragrance*

Plasticizers that disrupt testosterone and estrogen. Found in fragrance, nail polish, plastic, and flexible PVC.

Synthetic Fragrance / Parfum

Also listed as: *listed as fragrance, parfum, or scent*

A blanket term for up to 3,000 undisclosed chemicals. The single most important ingredient to avoid across all categories.

Sodium Lauryl Sulfate (SLS)

Also listed as: *sodium lauryl sulfate, sodium laureth sulfate, SLES*

Foaming agent that strips natural oils and irritates skin and mucous membranes. Found in shampoo, toothpaste, and body wash.

Formaldehyde Releasers

Also listed as: *DMDM hydantoin, quaternium-15, imidazolidinyl urea*

Release formaldehyde slowly as a preservative. Formaldehyde is a known carcinogen. Found in

shampoo, baby products, and lotions.

BPA and BPS

Also listed as: *bisphenol A, bisphenol S*

Endocrine disruptors found in plastic containers, can linings, and thermal receipt paper. Leach into food especially when heated.

PFAS

Also listed as: *Teflon, polytetrafluoroethylene (PTFE), perfluorooctanoic acid (PFOA)*

Forever chemicals used in non-stick cookware, water-repellent clothing, and food packaging. Accumulate in the body indefinitely.

Oxybenzone and Octinoxate

Also listed as: *oxybenzone, benzophenone-3, octinoxate*

Chemical UV filters that are potent endocrine disruptors. Found in most conventional sunscreens. Use mineral zinc oxide only.

Triclosan

Also listed as: *triclosan, microban*

Antibacterial compound that disrupts thyroid hormones and contributes to antibiotic resistance.

Aluminum Compounds

Also listed as: *aluminum chlorohydrate, aluminum zirconium*

Used in antiperspirants. Accumulates in tissue. Switch to aluminum-free natural deodorant.

Toluene

Also listed as: *toluene, benzene*

Solvent found in nail polish and nail treatments. Neurological toxin and reproductive hazard.

Coal Tar Dyes

Also listed as: *FD&C Blue 1, Green 3, Yellow 5, Yellow 6, Red 40*

Petroleum-derived synthetic dyes found in food, shampoo, and makeup. Linked to cancer and hyperactivity.

Polyethylene Glycols (PEGs)

Also listed as: *PEG compounds, cetareth, polyethylene*

Petroleum-derived thickeners. May be contaminated with ethylene oxide and 1,4-dioxane, both carcinogens.

Ethanolamine Compounds

Also listed as: *DEA, MEA, TEA*

Hormone-disrupting compounds that form carcinogenic nitrosamines when combined with other preservatives.

Hydroquinone

Also listed as: *hydroquinone, skin lightening agents*

A skin-lightening agent that is carcinogenic and toxic to the nervous system. Found in skin brightening and anti-aging products.

Chemical Flame Retardants

Also listed as: *PBDEs, TCEP, chlorinated tris*

Applied to foam furniture, mattresses, and children's sleepwear. Persistent endocrine disruptors accumulating in human tissue.

Chlorine and Chloramines

Also listed as: *sodium hypochlorite, chloramine*

In tap water and bleach. React with organic material to form trihalomethanes, which are carcinogenic.

Artificial Sweeteners

Also listed as: *aspartame, sucralose, saccharin, acesulfame K*

Alter gut microbiome composition, may cause insulin dysregulation, and are associated with neurological effects.

Chapter 9: EMF and Digital Toxins



Electromagnetic fields (EMFs) are areas of energy that surround electronic devices. They exist on a spectrum from extremely low frequency fields produced by power lines and appliances, to radiofrequency radiation emitted by cell phones, wifi routers, smart meters, and Bluetooth devices. This is the area of non-toxic living with the most contested science, the most industry influence over research, and the most significant gap between what official bodies say and what independent researchers are finding.

This chapter does not claim EMFs cause cancer. It acknowledges that the research is genuinely mixed, that precautionary approaches are rational given how new this exposure is in human history, and that there are practical, inexpensive steps that significantly reduce your daily EMF load with no downside whatsoever.

The Sources of EMF Exposure in Your Home

- Cell phone: the highest intensity personal EMF source. Signal strength increases dramatically when connection is poor, during calls, and when uploading or downloading data.
- Wifi router: emits radiofrequency radiation continuously in all directions. Most people have one running 24 hours a day in their home.
- Smart meter: installed on the outside of most homes by utility companies. Transmits data wirelessly, typically hundreds of times per day in bursts.
- Bluetooth devices: earbuds, speakers, smart watches, and keyboards all emit low-level radiofrequency continuously when connected.
- Baby monitors: particularly the digital variety emit constant radiofrequency radiation often placed within feet of where the baby sleeps.
- Smart appliances: refrigerators, thermostats, and other smart home devices with wifi connectivity.
- Power lines and electrical wiring: produce extremely low frequency magnetic fields. Most significant in bedrooms where the body rests and repairs.

What the Research Currently Shows

The World Health Organization classifies radiofrequency electromagnetic fields as a possible carcinogen (Group 2B), the same category as coffee and talc. The evidence is considered suggestive but not conclusive. A 2021 systematic review published in Environmental Health Perspectives found significant associations between long-term cell phone use and glioma (brain

tumor) risk. Studies consistently find biological effects from EMF exposure including increased oxidative stress, disruption of melatonin production, and changes in blood-brain barrier permeability. The precautionary principle applies here. The potential harm is significant, the exposure is pervasive, and the protective measures are simple and cost-free. Even if the science ultimately shows less risk than some researchers currently suggest, the habits below improve sleep, reduce screen dependency, and create healthier boundaries with technology for reasons entirely separate from EMF concern.

The Bedroom: Your Most Important EMF Zone

The bedroom is where your body does its most critical repair work. Growth hormone peaks during deep sleep, immune function consolidates, the nervous system processes the day, and the brain clears metabolic waste through the glymphatic system. All of these processes are sensitive to electrical disruption. The bedroom should be your lowest EMF environment.

✗ AVOID	✓ USE INSTEAD
Phone on the nightstand while sleeping	Phone in another room, airplane mode, or powered off
Wifi router in or near bedroom	Router in a central location away from sleeping areas
Wifi on 24 hours	Router on a timer, off from 10pm to 6am
Bluetooth earbuds for calls	Wired earphones or speaker phone mode
Smart baby monitor	Analog audio-only baby monitor
Electric blanket used while sleeping	Preheat bed with electric blanket, unplug before sleeping
Digital alarm clock on nightstand	Battery-operated analog alarm clock

Cell Phone Hygiene

- Keep phone away from your body when not in use. In a bag rather than a pocket. On a desk rather than in your hand.
- Use speaker phone or wired earphones for calls. Holding a phone to your ear puts the highest-intensity exposure directly against your skull.
- Do not carry your phone in your bra or shirt pocket against your chest.
- Text rather than call when possible to keep the phone away from your head.
- Put your phone on airplane mode at night and charge it outside the bedroom.
- Be especially mindful in low-signal areas. The phone increases transmission power significantly when struggling to maintain a connection.

Digital Toxins: Blue Light and Screen Exposure

Beyond EMF, the screens themselves present a different category of biological impact. Blue light from screens suppresses melatonin production, with significant effects beginning as early as two hours before the light exposure if it is bright enough. Screens also stimulate dopamine circuits, create a state of low-grade stress and vigilance, and keep the nervous system in a sympathetic (fight-or-flight) state that makes it difficult to transition into the parasympathetic rest needed for deep sleep.

The research on heavy screen use and mental health, particularly in children and adolescents, is now substantial and consistent. Social comparison, exposure to curated perfection, and the

dopamine loop of notifications create genuine psychological load that ancestral nervous systems were not designed to process.

x AVOID	✓ USE INSTEAD
Screen use in the hour before bed	Reading, journaling, stretching, candlelight
Overhead bright lights after sunset	Lamps, salt lamps, candles, amber bulbs
Standard screen brightness after dark	Night mode or f.lux software, minimum brightness
Phone in the bedroom at night	Dedicated alarm clock, phone in another room
Scrolling as a way to relax	Physical book, craft, or conversation
Blue light exposure in morning	Sunlight first, screens second

ANCESTRAL CONTEXT

Every generation of humans before the current one went to sleep in near-total darkness and woke with the sun. The visual system and the melatonin pathways it governs evolved over millions of years in this pattern. Two hours of bright screen light before bed is an evolutionary novelty with no precedent. The sleep disruption most people accept as normal is largely a product of this single exposure.

Chapter 10: The Non-Toxic Swap Guide

This is your quick-reference swap guide. Use it when you run out of something and are ready to replace it with a cleaner alternative. You do not need to do all of this at once. Replace as you run out. One swap at a time becomes a fully non-toxic home within a year.

Personal Care

✗ AVOID	✓ USE INSTEAD
Commercial shampoo with SLS and fragrance	Innersense, Rowe Casa, or DIY castile
Commercial conditioner with silicones	Natural conditioner bar or raw shea rinse
Antiperspirant with aluminum	Native, Primal Pit Paste, or DIY baking soda
Chemical sunscreen	Badger, Beautycounter, or zinc-only formula
Commercial moisturizer with fragrance	Organic tallow balm, rosehip, or jojoba oil
Commercial face wash with SLS	Raw honey cleanser or gentle castile wash
Conventional toothpaste with SLS	Risewell, Wellnesse, or fluoride-free clay paste
Plastic razor with shaving gel	Safety razor with shea butter shaving cream
Commercial makeup with synthetic dye	ILIA, RMS Beauty, or 100% Pure
Nail polish with toluene and formaldehyde	10-free or 16-free nail polish
Conventional perfume with synthetic fragrance	Pure essential oil blend or natural perfume
Commercial lip balm with mineral oil	Beeswax lip balm with coconut or shea

Kitchen

✗ AVOID	✓ USE INSTEAD
Non-stick pans	Cast iron or 18/10 stainless steel
Plastic food containers	Glass containers with stainless or glass lids
Plastic wrap	Beeswax wraps or silicone covers
Plastic cutting boards	Hardwood cutting boards (maple, walnut)
Aluminum foil in contact with acidic food	Parchment paper
Teflon baking pans	Unbleached parchment on stainless pans
Plastic utensils	Wooden or stainless steel utensils
Drip coffee maker with plastic carafe	Pour-over with glass carafe or French press
Commercial dish soap	Branch Basics or Sal Suds
Plastic dishwasher pods	Fragrance-free dishwasher pods

Bedroom and Home

x AVOID	✓ USE INSTEAD
Polyester sheets	100% linen or GOTS organic cotton
Synthetic duvet	Wool or organic cotton fill
Paraffin candles	100% beeswax with essential oils
Plug-in air freshener	Essential oil diffuser with pure oils
Conventional laundry detergent	Branch Basics, Molly's Suds, or soap nuts
Dryer sheets	Wool dryer balls with lavender oil
Fabric softener	White vinegar in the rinse cycle
Conventional cleaning spray	Vinegar and water with essential oils
Bleach	Hydrogen peroxide or oxygen bleach
Synthetic hand soap with fragrance	Castile soap with essential oils

Chapter 11: Non-Toxic Pet Care

Pets are family. They sleep in our beds, eat from our hands, and share every room in our home. They are also among the most chemically exposed members of most households, absorbing pesticides from conventional lawns through their paw pads, eating from plastic bowls that leach BPA with every meal, and being treated with flea and tick chemicals that are among the most acutely toxic compounds applied in the average home.

Animals often show the effects of environmental toxins before humans do because they live closer to the ground where heavier particles settle, groom themselves and ingest whatever is on their coat, and have smaller bodies with proportionally higher exposure. Paying attention to your pet's health is one of the most sensitive indicators of the toxic load in your home environment.

Flea and Tick Treatments

Conventional flea and tick treatments, including the popular spot-on treatments applied to the back of the neck, contain organophosphate or pyrethroid pesticides that are neurotoxic. These compounds do not stay on the pet. They spread to every surface the animal touches, persist in bedding and furniture for weeks, and transfer to human skin through contact. Children who pet treated dogs have measurable levels of these compounds in their urine.

Flea collars are particularly concerning. A 2020 report by the Natural Resources Defense Council found that residue from flea collars containing tetrachlorvinphos remained at levels unsafe for children on dog fur for weeks after application, and on furniture they contacted. The EPA has received thousands of adverse event reports for common flea collar brands.

✗ AVOID	✓ USE INSTEAD
Chemical spot-on flea treatment	Diatomaceous earth (food-grade) applied to coat
Conventional flea collar	Essential oil flea collar (cedarwood, lavender, neem)
Chemical flea spray for home	Diatomaceous earth on carpets and pet bedding
Chemical lawn treatment for ticks	Beneficial nematodes applied to lawn (natural predators)
Chemical flea shampoo	Neem oil or cedar-based natural pet shampoo

DIATOMACEOUS EARTH NOTE

Food-grade diatomaceous earth is the fossilized remains of tiny aquatic organisms. It works mechanically rather than chemically, damaging the exoskeleton of fleas and other insects on contact. It is completely safe for mammals and can be applied to pet fur, bedding, and carpets. Always use food-grade, never pool-grade which is treated with heat and is harmful to inhale.

Pet Food and Water Bowls

Plastic pet bowls leach BPA, BPS, and other endocrine disruptors into food and water, especially when the plastic is scratched or worn. Pets eat from their bowls multiple times per day, making this

a significant cumulative exposure. Plastic bowls also harbor biofilm in micro-scratches that cannot be fully cleaned even in a dishwasher.

✗ AVOID	✓ USE INSTEAD
Plastic food and water bowls	Stainless steel or ceramic bowls
Plastic automatic water fountain	Stainless steel or ceramic pet fountain
Plastic food storage container	Glass or stainless steel airtight container
Plastic travel water bottle for pets	Stainless steel collapsible travel bowl

Pet Bedding and Sleeping Areas

Most conventional pet beds are made from polyester fill and polyester fabric covers. They off-gas VOCs, shed microplastics, and are often treated with stain-resistant or odor-resistant chemical coatings. If your pet sleeps in your bed, their bedding toxins become your bedding toxins.

✗ AVOID	✓ USE INSTEAD
Polyester-filled pet bed	Organic cotton or wool-filled pet bed
Synthetic fabric pet bed cover	100% cotton or linen removable cover
Synthetic pet blanket	Old organic cotton or wool blanket dedicated to the pet
Chemical odor eliminator spray for pet areas	Baking soda and white vinegar spray

Pet Shampoo and Grooming

Pet shampoos follow the same problematic ingredient patterns as human shampoos: synthetic fragrances, sulfates, parabens, and artificial colors. Because pets groom themselves after bathing, they ingest whatever remains on their coat. Fragrance in pet products is particularly problematic for cats, whose livers cannot process many essential oil compounds and fragrance chemicals the way dogs and humans can.

✗ AVOID	✓ USE INSTEAD
Conventional pet shampoo with fragrance	Fragrance-free castile soap diluted 1:10 with water
Medicated shampoo with synthetic actives	Neem oil diluted in castile for skin issues
Pet deodorizing spray with synthetic fragrance	Diluted apple cider vinegar spray (1:5 with water)
Commercial dry shampoo for pets	Arrowroot powder or baking soda worked into coat
Chemical ear cleaner	Diluted apple cider vinegar on a cotton ball

Lawn and Garden Safety for Pets

Dogs and cats who walk on lawns treated with synthetic herbicides and pesticides absorb these compounds through their paw pads, which are highly permeable. Glyphosate from herbicides like Roundup has been detected in the urine of dogs living in households that use conventional lawn

care. Dogs who spend time on treated lawns have higher rates of certain cancers including bladder cancer and malignant lymphoma than those who do not.

- Remove shoes before entering the home to avoid tracking lawn chemicals inside on floors where pets and children spend time.
- Wipe pet paws with a damp cloth after walks in areas that may have been chemically treated.
- Use corn gluten meal as a natural pre-emergent weed control instead of synthetic herbicides.
- Apply food-grade diatomaceous earth to the lawn to control fleas and other insects without chemical pesticides.
- Use white vinegar directly on weeds as a contact herbicide. It is not systemic and does not persist in soil.
- If neighbors treat their lawns, consider rinsing pet paws after outdoor time and keeping windows closed on treatment days.

What to Avoid in the Home for Pet Safety

- ✗ Essential oil diffusers around cats: cats lack the liver enzymes to metabolize many essential oils including tea tree, eucalyptus, peppermint, and citrus oils. Diffusing these in enclosed spaces where cats spend time can cause neurological symptoms and liver damage.
- ✗ Paraffin candles: the VOCs and soot from burning paraffin accumulate in pet respiratory tracts. Cats are particularly sensitive due to their small lung capacity. Switch to beeswax.
- ✗ Air freshener plug-ins and sprays: highly toxic to birds and cats. A single air freshener incident has caused bird deaths from respiratory failure. Never use these in homes with birds.
- ✗ Mothballs: contain naphthalene or paradichlorobenzene, both of which are toxic to pets and humans. Use cedar blocks or sachets instead.
- ✗ Dryer sheets on pet bedding: the coating chemicals and synthetic fragrance transfer to pet fur and are ingested during grooming.
- ✗ Teflon cookware fumes: birds are extraordinarily sensitive to PTFE fumes from overheated non-stick cookware. A single overheated Teflon pan has killed pet birds in the same home. This alone is reason enough to replace non-stick cookware immediately if you have birds.

Chapter 12: Mold and Mycotoxins

Mold is the most significant and most underdiagnosed indoor environmental health issue in the modern home. It is estimated that 50% of homes in the United States have moisture problems that support mold growth. Unlike chemical toxins that can be swapped out, mold is a living organism that grows, spreads, and produces toxic byproducts called mycotoxins that accumulate in human tissue and have been linked to a wide range of serious health conditions.

This chapter is not meant to create panic about every bathroom ceiling spot. It is meant to give you an honest picture of what mold actually is, where it actually hides, what it actually does to the body, and what you can actually do about it. Many people live for years with unexplained symptoms including chronic fatigue, brain fog, recurrent respiratory infections, hormonal disruption, anxiety, and joint pain that resolve completely once mold is identified and addressed.

Mold illness is one of the most commonly missed diagnoses in modern medicine because its symptoms look like so many other conditions. If you have tried everything and nothing has worked, look at your environment.

What Mold Actually Is

Mold is a type of fungus that reproduces by releasing spores into the air. Mold spores are present in virtually all indoor and outdoor environments at low levels, and at these levels the immune system handles them without issue. The problem arises when mold finds a moisture source and begins actively growing inside a building. Active mold colonies produce two categories of compounds that affect human health: mold spores in high concentrations that trigger respiratory and immune responses, and mycotoxins, which are chemical byproducts produced by certain mold species as a defense mechanism.

Not all mold produces dangerous mycotoxins. The most clinically significant mycotoxin-producing molds found in homes include *Stachybotrys chartarum* (black mold), *Aspergillus* species, *Chaetomium*, *Penicillium*, and *Fusarium*. These produce mycotoxins including ochratoxin A, trichothecenes, aflatoxins, and gliotoxin, all of which are documented to cause harm in humans at sufficient exposure levels.

Where Mold Hides in Your Home

Mold requires three things to grow: moisture, a food source (organic material), and warmth. In modern homes, these conditions exist in far more places than most people realize:

- Behind bathroom tiles and in grout lines: the most common location. Shower and bath areas cycle between wet and dry, and any gap in caulking or grout allows moisture to penetrate and feed mold inside the wall.
- Under and around sinks: slow drips and condensation on pipes create perfect mold conditions inside cabinetry where it is dark and rarely inspected.
- HVAC systems and air ducts: mold growing in ductwork circulates spores through every room in the home with every heating and cooling cycle. This is one of the most significant exposure routes.
- Window frames and sills: condensation on cold windows provides consistent moisture. Mold grows in the rubber seals and inside double-pane windows that have lost their seal.

- Washing machines: the rubber gasket of front-loading washing machines is one of the most consistent mold growth sites in the home. The dark, moist, rarely dried environment is perfect.
- Basements and crawl spaces: particularly in humid climates. Concrete and dirt floors wick moisture upward continuously. Mold in a crawl space releases spores into the living area above through gaps in flooring.
- Attics: poor ventilation and roof leaks create mold conditions that can persist for years without being detected from the living areas below.
- Inside walls near plumbing: any slow leak inside a wall creates a sustained moisture source hidden from view. The first sign is often a musty smell with no visible source.
- Potting soil in houseplants: damp soil harbors mold, particularly in overwatered plants. This is a significant air quality consideration for those with mold sensitivity.
- Food: not just visible bread mold. Mycotoxins in grains, nuts, coffee, dried fruit, and certain spices are a significant dietary source of mold toxin exposure separate from environmental mold.

How Mold Affects the Body

Mold exposure affects people very differently depending on genetic susceptibility. Research by physician Ritchie Shoemaker estimates that approximately 24% of the population carries HLA gene variants that make them unable to clear mycotoxins normally. In these individuals, mycotoxins accumulate in tissue rather than being processed and eliminated, leading to a chronic inflammatory response that affects virtually every system in the body.

The symptoms of mold illness are wide-ranging and often mimic other conditions which is why it is so frequently missed:

- Neurological: brain fog, memory and concentration problems, word-finding difficulty, anxiety, depression, and in severe cases, neuropathy
- Respiratory: chronic sinusitis, recurrent upper respiratory infections, asthma that does not respond to standard treatment, and shortness of breath
- Hormonal: mold and mycotoxins disrupt the HPA axis (the hypothalamic-pituitary-adrenal axis), leading to cortisol dysregulation, thyroid disruption, and sex hormone imbalance
- Immune: recurrent infections, autoimmune flares, and mast cell activation symptoms including histamine intolerance
- Musculoskeletal: joint pain, muscle weakness, and unexplained fatigue that does not improve with rest
- Digestive: leaky gut, food sensitivities that develop suddenly, and chronic bloating

IMPORTANT NOTE

If you suspect mold illness, work with a physician familiar with biotoxin illness. Testing options include the Visual Contrast Sensitivity test developed by Shoemaker, organic acids testing for mycotoxin metabolites in urine, and HLA genetic typing. Environmental testing of your home is a separate but equally important step.

How to Test for Mold in Your Home

Visual and Sensory Inspection

Start with your nose. A persistent musty or earthy smell in any room, especially after rain or in humid weather, is the most reliable early indicator of active mold growth. Mold does not always look black. It can be white, green, grey, orange, or pink. Check all the locations listed in the previous section with a flashlight.

ERMI Testing

The Environmental Relative Moldiness Index (ERMI) test is a DNA-based dust test developed by the EPA that identifies and quantifies 36 mold species in settled household dust. It is considered one of the most reliable home mold tests available. Collect a dust sample from a settled area and send it to a certified lab. The Mycometrics laboratory is a widely used option.

HERTSMI-2 Test

A subset of the ERMI that focuses on the five mold species most associated with human illness: *Stachybotrys*, *Aspergillus penicillioides*, *Aspergillus versicolor*, *Chaetomium globosum*, and *Wallemia sebi*. Less expensive than the full ERMI and sufficient for most screening purposes.

Air Sampling

Professional air sampling by a certified industrial hygienist provides a snapshot of airborne spore counts at the moment of testing. More useful for identifying active mold sources than for overall home assessment. Can miss intermittent mold sources.

Plate Testing Kits

The inexpensive petri dish mold test kits sold at hardware stores are largely unreliable. Any indoor environment will grow something on an open petri dish. These tests cannot tell you what species are present, whether levels are elevated, or where the source is. Do not rely on them for meaningful information.

Mold Prevention and Remediation

Prevention

- Keep indoor humidity below 50%. Use a hygrometer to monitor. Run a dehumidifier in basements and bathrooms as needed.
- Fix any leak immediately. Even a slow drip inside a wall creates a mold condition within 24 to 48 hours of sustained moisture.
- Run bathroom exhaust fans during and for 20 minutes after every shower.
- Leave a gap between furniture and exterior walls to allow air circulation.
- Clean washing machine gaskets weekly with white vinegar and leave the door open between uses.
- Replace HVAC filters on schedule. Upgrade to MERV 11 or higher filters to capture mold spores.
- Use a HEPA air purifier in bedrooms and main living areas.
- Remove visible mold on non-porous surfaces immediately using hydrogen peroxide or tea tree oil solution.

When to Call a Professional

Any mold covering an area larger than 10 square feet, any mold inside HVAC systems, any mold associated with sewage contamination, and any mold that returns after cleaning should be addressed by a certified mold remediation professional. DIY remediation of significant mold growth often disturbs the colony and releases a much higher concentration of spores into the living area, worsening exposure. If you are already experiencing symptoms you believe are mold-related, do not attempt large-scale remediation yourself.

Non-Toxic Mold Cleaning for Small Areas

1. Apply undiluted 3% hydrogen peroxide to the affected area. Let sit for 10 minutes.
2. Scrub with a stiff brush. Wipe and dry thoroughly.
3. Follow with a solution of 10 drops tea tree oil in 1 cup water. Spray and do not rinse. Tea tree has proven antifungal properties that inhibit regrowth.
4. Address the moisture source that enabled the mold. Cleaning visible mold without fixing the moisture problem is a temporary solution.

✗ AVOID	✓ USE INSTEAD
Bleach for mold cleaning	Hydrogen peroxide followed by tea tree solution
Standard HVAC filter (MERV 1-4)	MERV 11 or higher pleated filter
No dehumidifier in humid spaces	70-pint dehumidifier for basement or bathroom
Cheap hardware store mold test kit	ERMI or HERTSMI-2 DNA dust test
DIY large-scale mold remediation	Certified mold remediation professional
Synthetic air freshener masking musty smell	HEPA air purifier plus address moisture source

Mold in Food

Dietary mycotoxin exposure is a significant and largely ignored component of the total mold burden for many people. These foods are the highest risk for mycotoxin contamination and are worth reducing or eliminating during a mold detox protocol:

- ✗ Conventionally grown corn and corn products: aflatoxin contamination is common in corn, particularly in warm humid storage conditions
- ✗ Conventional peanuts and peanut butter: peanuts are one of the highest-risk foods for aflatoxin contamination due to their storage conditions
- ✗ Conventional coffee: ochratoxin A is found in significant quantities in low-quality coffee that has been poorly stored or processed. Single-origin, specialty grade coffee has lower contamination rates
- ✗ Dried fruit: stored in warm conditions that favor mold growth. Particularly raisins, dried apricots, and figs
- ✗ Grains stored long-term: wheat, oats, and rice stored in humid conditions develop mycotoxin contamination over time
- ✗ Aged and fermented cheeses: contain mold by design. Not harmful to most people but can be an issue for those with significant mold sensitivity

ANCESTRAL CONNECTION

Ancestral food preparation methods including fermentation, drying in direct sunlight, and consuming food fresh and in season were all natural protections against mycotoxin accumulation. Traditional cultures rarely stored grain for more than one season, prepared fermented foods in ways that selected for beneficial bacteria over mold, and ate seasonally in ways that naturally limited their exposure to stored and processed foods.

Chapter 13: How to Transition Without Overwhelm

You do not need to throw everything away. You need to replace things better when they run out. That is it. That is the whole strategy.

The most common mistake in beginning a non-toxic transition is doing too much at once. People throw out everything, spend hundreds of dollars on replacements, feel overwhelmed by the research, and either quit or develop a level of anxiety about toxins that creates its own health burden. Chronic stress and anxiety are genuinely more harmful than most of the chemicals you are trying to avoid.

The ancestral approach to this transition is exactly the same as the ancestral approach to seasonal eating: gradual, intentional, prioritized, and sustainable. Start with what matters most. Replace as you run out. Notice the difference. Keep going.

The Replace-As-You-Run-Out Method

When your current shampoo runs out, buy a clean alternative. When your candles burn down, replace them with beeswax. When your non-stick pan scratches beyond use, buy a cast iron. This approach costs no more than your normal shopping would cost over the same period of time and requires no dramatic upfront investment.

The one exception is anything you use heavily every single day on your skin. Body lotion, face moisturizer, deodorant, shampoo, and toothpaste are worth replacing sooner because the daily cumulative exposure from these products is significant. These are the items worth replacing now rather than waiting until they run out.

The Priority Order for Maximum Impact

1. Daily skin contact personal care: deodorant, body lotion, face moisturizer, shampoo. Replace first.
2. Cookware: replace one non-stick pan with cast iron or stainless. Start with the pan you use most.
3. Cleaning products: make or buy one non-toxic all-purpose spray and replace your conventional version.
4. Bedroom: replace synthetic sheets with linen or organic cotton. This is 8 hours of daily exposure.
5. Candles: replace paraffin with beeswax. This is an easy, inexpensive, high-impact swap.
6. Water filtration: add a shower filter and a drinking water filter.
7. Food storage: replace plastic containers with glass as they wear out.
8. Sunscreen: replace chemical with mineral zinc oxide before next sun exposure.
9. Baby and children products if applicable: prioritize anything in contact with baby's skin.
10. EMF hygiene: phone out of bedroom at night. This costs nothing and starts tonight.

Budget-Friendly Approach

Non-toxic living does not require spending more money. Most conventional cleaning products can be replaced with white vinegar, baking soda, and castile soap for a fraction of the cost. Cast iron cookware is less expensive than quality non-stick pans and lasts a lifetime. DIY personal care products using a few carrier oils and essential oils cost significantly less per use than commercial alternatives.

The areas where non-toxic alternatives do cost more are mattresses, organic bedding, and some personal care products. For these, prioritize what you can afford now and build over time. A certified organic mattress encasement is a fraction of the cost of an organic mattress and provides meaningful protection in the interim.

When to Stop Researching and Start Acting

There is a point in the non-toxic research process where more information stops being helpful and starts generating anxiety. If you find yourself reading about chemicals for hours, feeling overwhelmed by how much is in everything, or feeling unable to eat or use anything without fear, that is the signal to stop researching and start acting on what you already know.

You already know enough to make meaningful changes. The list in this guide is comprehensive. The swap guide gives you specific alternatives. The priority order tells you where to start. Put the phone down and start with one thing today.

Chapter 14: The 30 Day Non-Toxic Reset Plan

This 30 day plan is designed to walk you through the most impactful non-toxic swaps in a manageable sequence. It is built around the replace-as-you-run-out philosophy with a few targeted purchases to address the highest priority areas immediately. You do not need to complete every task to experience significant benefit. Do what you can and let the rest follow.

Week 1: The Bedroom and Nighttime Routine

- ❑ Move your phone out of the bedroom or put it on airplane mode before sleep tonight. Do this every night from now on.
- ❑ Turn off or put your wifi router on a timer set to power off at 10pm and back on at 6am.
- ❑ Replace your overhead bedroom light with a warm amber bulb or use a salt lamp instead.
- ❑ Order beeswax candles to replace any paraffin candles in your bedroom.
- ❑ Wash your current bedding twice in fragrance-free detergent.
- ❑ Begin researching organic linen or cotton sheets to replace your current bedding when it wears out.
- ❑ Stop using any screen for the hour before sleep and notice the difference in how quickly you fall asleep.

Week 2: Personal Care

- ❑ Read the ingredient label on every personal care product you use daily. Flag anything containing fragrance, parabens, or SLS.
- ❑ Replace your deodorant with an aluminum-free natural alternative.
- ❑ Replace your body lotion or moisturizer with organic tallow balm, shea butter, or jojoba oil.
- ❑ Order a clean shampoo and conditioner to replace your current products when they run out.
- ❑ Install a shower filter if you do not have one.
- ❑ Replace your toothpaste with a fluoride-free alternative.
- ❑ If you wear makeup daily, identify the one or two products you use most and find clean alternatives.

Week 3: The Kitchen

- ❑ Check your cookware. If you have scratched non-stick pans, remove them from use and order a cast iron skillet.
- ❑ Make the all-purpose cleaning spray from Chapter 4 and replace your commercial spray.
- ❑ Replace your dish soap with Branch Basics or Sal Suds.
- ❑ Move all plastic food containers to a cabinet for non-food use and replace with glass containers.
- ❑ Order a water filter if you do not have one. Start with a Berkey or reverse osmosis system.
- ❑ Replace plastic wrap with beeswax wraps or silicone covers.
- ❑ Read the ingredient label on the five processed foods you eat most regularly.

Week 4: The Rest of the Home

- ❑ Open windows in every room for at least 20 minutes.
- ❑ Replace your laundry detergent and add white vinegar as a fabric softener replacement.
- ❑ Buy a bag of wool dryer balls and stop using dryer sheets.
- ❑ Remove shoes at the door consistently from this week forward.
- ❑ Place one air-filtering houseplant in your bedroom or main living area.
- ❑ Order organic cotton or GOTS certified underwear as your next replacement.
- ❑ Identify one area of your home that still needs attention and make a plan for it.
- ❑ Celebrate what you have already changed. You have meaningfully reduced your daily body burden. That matters.

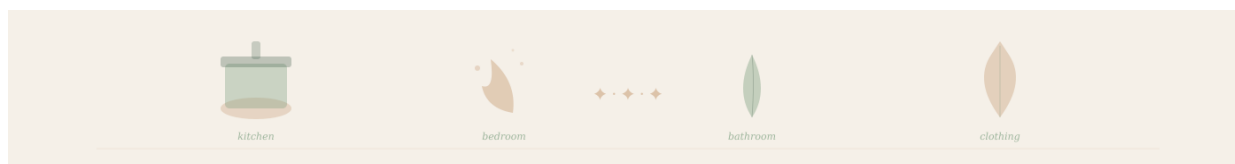


A Final Word

Non-toxic living is not a destination. It is a direction.

Every swap you make is a vote for a different relationship with the products in your home. Every time you read an ingredient label you are exercising a kind of literacy that most people never develop. Every time you choose a beeswax candle over a paraffin one, a cast iron pan over a non-stick, a linen sheet over a polyester one, you are doing something small that accumulates into something significant over months and years.

Your body is working for you every day. Your liver is filtering. Your lymphatic system is clearing. Your immune system is patrolling. The least you can do is reduce the load you are asking them to carry. Start where you are. Replace what you can. Trust the process.



Living clean is not about fear. It is about respect. For your body, your home, and the people you share them with.

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Living Clean: The Complete Non-Toxic Home and Life Guide