

Medical Medium Cleanse to Heal
By Anthony William

CHAPTER 36

Liver Troublemakers

We're exposed every day to substances that threaten our health. Luckily, we're also blessed with miraculous, neutralizing, filtering livers. The liver does such a good job protecting us that much of the time, we're not even aware that anything potentially harmful ever entered our system. For the liver, though, these substances make mischief. That's why I call them liver troublemakers. They burden it, strain its resources, and put it under constant pressure to keep them contained for fear of what would happen to our health if they were let loose and became heart troublemakers or brain troublemakers or full-body troublemakers. You've read in detail about just what kinds of symptoms and conditions can result from liver troublemakers getting out of hand. Now we're going to examine the shocking full list of what most commonly crowds our livers—the unfriendly invaders that live rent free.

If you've been telling yourself that you're free and clear of troublemaker exposure, know that you're doing your liver an injustice with that belief. You're doing your health and well-being an injustice. You're doing your potential peace and happiness an injustice. The list later in this chapter will open your eyes to how much a part of our daily environment so many troublemakers are—they're literally at our fingertips and as close as the air we breathe. Only when you're conscious of what your liver has been exposed to throughout your life, and before you were even born, can you be ready to help your liver recover so you can finally feel better and guard yourself and your loved ones from illness for the future.

THE THREE DEPTHS OF THE LIVER

Each of the liver's two main lobes has three general levels: its perimeter surface, its subsurface, and its deep, inner core. While there are subtler layers within these levels, these three depths can form our basis for understanding how the liver stores and releases troublemakers.

You can think of the perimeter surface like the skin of an apple, where it's so integrated with the whole that if you peeled it off you might bring some flesh from underneath with it. The liver's subsurface has a good amount of room; it's like all that flesh of the apple. And the liver's deep, inner core, not surprisingly, is like the apple's core.

As you'll see in the list to come, some troublemakers stay in only one or two levels of the liver, and some can spread out across all three. Usually, if a troublemaker occupies more than one level, it's in different concentrations in each—for example, dioxins will settle in different strengths in each of the liver's three levels. The exceptions are chemical fertilizers, DDT and other pesticides, herbicides, and fungicides, which you'll see end up in equally high concentrations across all three of the liver's levels. Each level also contains a different combination of troublemakers. The "skin" of the liver can become saturated with materials that don't ever get into the liver itself. The "flesh" of the liver has its own mix of troublemakers. And the liver sends the worst of the troublemakers to its "core."

With as many dangerous substances as possible buried deep in its central core, the liver can protect you better. You can even walk around feeling good, because with these troublemakers tucked away, your liver can still function pretty well. What becomes problematic is when outside factors such as fat and adrenaline come to visit while the liver also has harmful materials buried within it—that combination can make you feel unwell. Think of it as a ship crossing the ocean. While your liver has both the capacity to handle a certain amount of cargo stored below deck and the courage of sailors facing rough seas, it also has limitations. When we pile extra cargo on top, or when we run into stormy weather, it has the potential to sink on us. That's why as a safeguard, we want to keep that cargo hold as clear of troublemakers as we can. Not to mention that your liver needs room to store all the good stuff like everyday provisions and emergency supplies, so we don't want to take up all its storage space with waste.

The deeper troublemakers go into the liver, the more it protects us in the moment and the more time it takes to pull them out later. It's one of the reasons that people's healing processes can vary so much in length. You might be following someone's healing path on social media, or maybe you're friends with someone who's taking the same steps you are, and you find yourself wondering why this person is bouncing back faster than you are. When you need more time to heal, it's because more troublemakers, and possibly more toxic troublemakers, are buried deeper within your liver.

In the list to come, you can read about where each type of troublemaker tends to settle in the liver, and you can use that as a guide to how long they take to cleanse. If a troublemaker sticks around in the liver's surface level, it will take less time to get out of your system, and if it goes into the liver's core, it will take more time and persistence to get it out. Times will also vary depending on the grade of toxin, poison, or pathogen, meaning that a more problematic liver troublemaker in, say, the subsurface level will take more time to get out than a less problematic one there. Another huge factor in how long it takes to lose these troublemakers is what you're doing to cleanse and what you're eating. In the troublemakers list, you'll find general timelines of how long each takes to leave the liver—if you're actively working to get them out in a safe, effective manner. The timelines are based on someone who's cleansing properly, which means (1) keeping out the troublemaker foods (which you'll read about in a few pages), (2) lowering the amount of radical fat you eat, (3) incorporating some of the supplementation advice from the next chapter, (4) following the Liver Rescue Morning in [Chapter 38](#) whenever you can, and (5) periodically bringing in the Liver Rescue 3:6:9 from that same chapter. If you suspect you're dealing with a decent amount of troublemakers based on what you're reading in this book, it's ideal to do the Liver Rescue 3:6:9 every two to three months. It will help you cleanse at a faster rate and get to deeper toxins than you can generally reach with the everyday measures. If that's too often, do the cleanse when you can, perhaps every six months.

THE TROUBLEMAKER LIST

Some of the troublemakers on this list are well known as taxing to the liver, such as alcohol and medication. You may be surprised to find that there are many more harmful substances that no one has warned you could hurt your liver, such as scented dryer sheets and plug-in air fresheners, of all things. You'll see the Unforgiving Four in this list and much more. Be prepared to see your world in a whole new light.

It's not that we need to live in fear or panic or wear hazmat suits to leave the house. Look, we have to live on Planet Earth. These troublemakers are part of life here, and many of them have been here since long before we were born. Some we can't avoid, so pick what you have control over. If you can't give up your hairspray, conventional makeup, perfume, or cologne; if you've got to cook with gas multiple times every day; or if you breathe in tons of exhaust as part of your job mowing lawns, maybe you can bring less fat into your diet and decide not to get your carpets cleaned with chemicals and opt not to drink a diet soda so your liver can still manage and cleanse while you're living your life. It's not about never pumping your own gas or never riding your bike in the rain (you'll see what I'm talking about soon). It's about taking care of your liver so you can live your life and do everything you need to do. With the most dangerous items, like mercury, do everything you can to stay away. With the other troublemakers, if you can sidestep a few of the items on this list, you're doing well.

While the list may be surprising, shocking, or unnerving to some degree, it will also be enlightening. Do you want to step into a pothole, or do you want to know where the pothole is so you can avoid a sprained ankle? That said, being aware of what's around and inside of you doesn't mean becoming obsessive or afraid to live. You can't avoid every single pothole. What you can do is use the list to help light the way, so even when you hit a rough patch, you know what terrain you're navigating—where you are and where you're going.

Let this list be a window into how you might have been exposed to various substances that gave your liver extra work to do without you ever realizing. If you want to live well and protect your family, you can't keep the blinds shut, pretend the substances aren't there, and ignore your liver. That would be like pretending cavities

don't exist and never visiting the dentist, only to be shocked later when there's a problem you can't ignore. Even if you weren't directly exposed to some of these troublemakers, you could have had secondary exposure—like secondhand smoke, secondhand troublemakers are around us. By understanding what could be inside our livers, we can understand how best to remedy them.

Petrochemicals Group

This group of troublemakers is extremely toxic to the central nervous system. Anybody with neurological sensitivities and symptoms will be especially sensitive to them. Many of these troublemakers settle deep in the liver's inner core, which means they take longer to come out of the liver. You don't need to be concerned about removing them from your liver all at once and immediately. Within the first two weeks of taking the steps I outlined in "The Three Depths of the Liver," you'll start getting the tip of the iceberg. After that, they'll continue to cleanse naturally in due time as you're caring for your liver.

- **Plastics:** We handle a lot of plastics each and every day. Anything plastic that you touch has the potential to leave residue on your skin. With too much lag time between touching plastic and washing our hands (or showering, if the plastic touched another part of the body), that residue has time to absorb into the skin and get into the system. It also enters our system when we ingest it from sources like plastic wrap, plastic food containers, plastic utensils and dishes, water bottles, the water supply, pharmaceuticals (they're filled with plastics), and packaged foods that were prepared using plastic assembly line parts. Some plastics such as high-end food processors, blenders, and juicers are of higher quality and less likely to leach, making them safe to use. Some plastics are low quality, and they leach instantly into the oils on your skin when you touch them. Plastics tend to settle in the subsurface level of the liver.
- **Gasoline:** In the old days, the petroleum exposure that comes from pumping gas was isolated to gas station attendants. With most states now pump-your-own, exposure has increased to virtually everyone, trickling right down to your teenage daughter putting gas in her new car. In the past, your teenage

daughter or son never would have been exposed to raw gasoline outside of the rare occasion of mowing the lawn. It's a whole different ballgame today, with millions of teens pumping gas. People aren't very cautious at the pump, so teens aren't trained to be careful. It's not uncommon to get a little splash-back or drip of gas on your skin when you're filling your tank; the rubber guard on the nozzle doesn't stop this from occurring. Almost everyone gets an after drop of gas on themselves in one way or another at the pump, plus if you stand too close to the spout you're breathing in the fumes. It's easy to catch a whiff from nearby pumps, too. Gasoline exposure like this at the service station is such a common occurrence that it's happened to almost everyone. Not to mention that some people handle gas for other reasons, like fueling lawn mowers, tractors, and weed whackers. Those gas cans sitting in the garage outgas, which means more inhalation exposure, plus it's easy to splash on yourself when handling them. Gasoline tends to settle in the subsurface and deep, inner core of the liver.

- **Diesel:** The exposure for this is the same as with gasoline. You get it from not being mindful when pumping diesel into your truck, car, tractor, or anything of the sort. Just like gas, it tends to settle in the subsurface and deep, inner core of the liver.
- **Engine oil and grease:** You often get grease on your hands just from popping your car's hood and checking the oil. And how many people have gotten oil on their fingers when wiping the oil stick? Even if you've only checked a car's oil stick once and it was ten years ago, any oil on your skin traveled into your liver, where it's still most likely sitting. While you might have long forgotten getting oil on your hands, your liver hasn't forgotten; it's well aware. It's easy to get oil on yourself when adding or changing the oil in your car, too. Engine oil and grease are even on nuts and bolts for brand-new manufactured items you buy such as tools. Roadways also have a thin layer of oil, grease, gasoline, and diesel on their surface. It means that when you're riding your bicycle or walking across the street in the rain, the splash-back you get from the pavement is filled with all four. Engine oil and grease tend to settle in the liver's deep, inner core.

- **Exhaust fumes:** This one speaks for itself, since it's everywhere. Exposure comes from walking down the street, grabbing a package at a delivery person's truck while the truck is still running, getting stuck in traffic on your way to work, passing a lawn that's being mowed or mowing your own, walking up to a restaurant for lunch just as someone fires up a car a few feet away, and so on. Although carbon monoxide is deadly if someone is poisoned by it when there isn't enough ventilation for exhaust fumes, it's not the poison in the liver. The petrochemical particles in the exhaust itself are what end up in the liver. These hundreds of types of exhaust chemicals settle in the liver's deep, inner core.
- **Kerosene:** While this one's not so everyday, and exposure is less now than it ever was, it doesn't mean you weren't exposed to kerosene heating devices back before portable heaters became more often electric. Plus there's still plenty of kerosene exposure to go around. For example, kerosene is often used to wash tools and paint brushes. It finds its way to the subsurface level and deep, inner core of the liver.
- **Lighter fluid:** Think you haven't been exposed to lighter fluid? Think again. Ever eaten a marshmallow roasted over a bonfire that was started with lighter fluid? Ever eaten food from a charcoal grill? The chemical residue sticks around on ignited wood, charcoal, and debris and lasts the whole fire—meaning that you get a marshmallow or hamburger with a hint of lighter fluid cooked into it. Not to mention that if you were the one squirting the fluid to begin with, you inhaled its fumes and likely got some on your hands, because we don't learn to be careful about exposure. I'm not trying to ruin your next cookout or bonfire meal of hot dogs on a stick and s'mores. You can still enjoy yourself; just make sure you're being proactive, so that if you absorb some of life's fun moments that are toxic, you also try to get some troublemakers out of your liver. The goal is to take care of your liver so you can live your life. Lighter fluid usually ends up in your liver's subsurface level and deep, inner core.
- **Gas grills, stoves, and ovens:** When you're lighting and using a grill, stove, or oven powered by natural gas, you inhale some of the gas, which gets into your

body. While you're cooking, the gas is still burning. Although it's not raw gas, it's still a troublemaker that you're breathing as long as the appliance is running. Not that you have to avoid cooking; it's just a good idea to avoid cooking with gas excessively. Natural gas usually goes to the subsurface level of the liver and its deep, inner core.

- **Chemical solvents, solutions, and agents:** These include degreasers, lubricants for squeaky doors and drawers, jewelry cleaner, car cleaning products, and carpet cleaning products, and they instantly absorb through the skin in seconds, entering the bloodstream and invading the liver quickly. We're also exposed when we breathe in their fumes. They settle in the liver's subsurface level and deep, inner core.
- **Dioxins:** Imagine a world coated with a dust too fine to see that's inhaled and eaten by every creature on the planet. That's our world, and dioxins are the "dust." These pollutants, a byproduct of over 100 years of chemical factory malfeasance, find their way into air, water, and food. Modern life *is* generalized dioxin exposure. They settle in all three levels of the liver.
- **Lacquer:** When we use varnishes, sealants, or adhesives like epoxy, or when they're applied in our homes or we purchase items freshly lacquered, we're exposed to harsh chemicals that can settle in all three levels of the liver.
- **Paint:** Painting a piece of furniture, painting inside or outside the house, or working in a freshly painted office could have exposed you to this one. I always cringe when I see people frolic and play-fight with paint-filled brushes and rollers because I know the consequences upon the liver of these acts of lethal play. Paint chemicals tend to settle in the subsurface level and deep, inner core of the liver.
- **Paint thinner:** Sometimes used in paint and sometimes used to clean up paint, this strong brew usually goes to the liver's subsurface layer and deep, inner core.
- **Carpet chemicals:** These include the chemicals used to treat new carpets during manufacture, the chemicals released from old carpets when they're cleaned, and the carpet cleaning chemicals themselves (the last of which deserve to show up in this list twice, they're so affecting). We inhale carpet

chemicals and also get them on our skin and clothes when we sit on carpets or walk on them in bare feet. They find their way into all three levels of the liver.

Chemical Neuroantagonists Group

The troublemakers in this group get into all three levels of the liver in equally high concentration. Their inheritance factor is also high, meaning they frequently end up in our livers as they're passed from generation to generation. Many of them are a downright disservice to humankind. As you can see from the group name, they're neuroantagonistic, too, making them particularly difficult for people with sensitive nervous systems and neurological conditions and symptoms. As with petrochemicals, the liver knows not to let these all go at once. Instead, it releases them carefully and cautiously, so they may take a longer time period to remove than some other troublemakers. Nevertheless, the liver still releases them in small increments. If you're committed, you can start getting some of these out in as fast as a week or two, and then the liver will continue to dole them out in measured amounts over time so the body doesn't get flooded by them.

- **Chemical fertilizers:** These are around more than we know. It's easy to be exposed from lawns, gardens, parks, conventionally grown flowers, conventionally grown food, golf courses, country clubs, campus greens, town commons, and our own yards.
- **Insecticides, other pesticides, larvicides, and herbicides:** These include both the indoor and outdoor varieties. For example, exposure could come from cans of roach killer, ant killer, termite spray, and wasp killer used inside the home. It could also come from food and flowers that were treated with pesticides; from apartments, houses, offices, hotels, dorm rooms, and other buildings where pesticides were used inside or out; and from lawns, gardens, parks, country clubs, and campus greens. It's a common occurrence for people to care deeply about eating organic food and then spray the yard for ticks, mosquitos, and weeds—which is pesticide and herbicide exposure. Find out if you live in an area that's sprayed and stay indoors when it happens. Cities across the country spray for caterpillars when the gypsy

moths come out around June, and it's extremely liver damaging. City-, town-, and statewide mosquito spraying is also very common in warm weather. It's often applied by helicopter, at any time of day or night without warning. If you like to spend time in your local park, find out its schedule, avoid it when it's freshly sprayed, and maybe even wait for a good rain before spending time there. If you're going to sit on chemically treated grass, make sure to put down a blanket first. Pregnant women should take special care; pesticide exposure can be enough to cause pregnancy complications.

- **DDT:** Although it fits within the category of pesticides, DDT is its own entity. Decades after being banned in the U.S., it's still in our environment, similar to how radiation and other nuclear waste affect generations. DDT has an extraordinarily long shelf life. It's the "gift" that will never stop giving. It remains in our oceans, lakes, streams, agricultural fields, and more. DDT from yesteryear is one of the most common troublemakers to inherit through the family line. It passes from liver to liver forever with ease until someone finally cleans it out of her or his liver so it can't be passed down to another generation. This is a prime example of why we need to cleanse and take care of our livers, so we can stop passing this "gift" down to our children. There are also countries that still use DDT in high amounts, and when winds pick it up—wind can even carry it from continent to continent—we get fresh exposure through the air. It's still around, and it's not leaving our environment any time soon.
- **Fungicides:** They're being used more and more everywhere, sprayed on new clothing and manufactured goods, from jeans to dresses to underwear to outerwear to socks to shoes to furniture to mattresses to blankets. Originally created for mold remediation in applications such as fungus on crops and in hospitals, since hospitals are a breeding ground for fungus, fungicides now have a broad usage. Fungicide sales and marketing groups will go as far as they can to wheel and deal and convince businesses to find new ways to use it on their products. Fungicides are often used in new cars and in used cars that are being resold. They're regularly used on planes and in garbage cans and bags. Recently, some bottled water brands have been sold into using it on

the outsides of their water bottles. Some foods are even treated with fungicides. They have a perfume-y scent to them that sizzles the nose if you pay attention. Whenever you can wash or wipe down an item after you've bought it, do so.

- **Smoke exposure of any kind:** Smoking draws a vast chemical industry compilation of hundreds to thousands of different chemicals into your lungs, bloodstream, and liver. Smoke inhalation from recreational sources such as fire pits, treated logs in the fireplace, and burning treated lumber also expose your liver to chemicals—though a regular smoker will face more chemicals than someone who visits a fire pit once in a while. It's also a common agricultural practice across the country to pile up and burn pesticide-laden plastic row covers from conventional crops. We all breathe in this white smoke; whether we like it or not and whether we can smell it or not, it's there.
- **Fluoride:** An aluminum byproduct that is highly toxic to the liver, causing liver cell damage.
- **Chlorine:** Highly toxic to the liver, it lowers the organ's immune function.

Problematic Food Chemicals Group

These tend to start leaving the liver fast when you're giving it what it needs to let go, and they don't take a long time to rid from your liver completely. With good liver care, you could eliminate all of these from the organ within six months to a year, with many of them beginning to release right out of the starting gate.

- **Aspartame:** You'll find this in diet sodas as well as hidden in flavoring. It goes to the liver's deep, inner core and is unique in the way it's stored in the liver—it tends to injure small blood vessels inside the liver, causing them to atrophy or shrink.
- **Other artificial sweeteners:** These are highly toxic to the liver, too, and find their way to its deep, inner core.
- **MSG:** Sometimes listed overtly as *monosodium glutamate* and sometimes hidden as "natural flavors" in our food, this ingredient also goes to the deep, inner core of the liver.

- **Formaldehyde:** You can be exposed to this troublemaker from so many sources, everywhere from cosmetics to pharmaceuticals to carpets to food. It does what alcohol does to the liver, only much more extreme. It's also a viral fuel. Formaldehyde saturates all three levels of the liver.
- **Preservatives:** If you're already anti preservative and take care to buy foods that don't list them in the ingredients, it doesn't mean they're not sneaking into your food. Accountability is reckless as far as preservative labeling goes. Not to mention that there were all those years before you became aware, so your liver had plenty of time to collect different varieties of chemically created preservatives. Your liver could be holding on to preservatives from hot dogs you ate decades ago, cotton candy from a fair, a milkshake with imitation fruit flavoring, a purple ice cone . . . the list is never ending. They tend to stay in the surface level of the liver.

Problematic Foods Group

This group of troublemakers is the first veil that comes off the liver when you start taking care of it. They all leave the liver fast, as long as you're staying away from consuming them while you're trying to cleanse them from the liver. (Keep reading for individual timelines.)

- **Eggs:** Keep pathogens thriving. Viruses and bacteria love eggs as their number-one food source, so when eggs are in the diet, pathogens can feed, causing harm to the liver. Egg whites don't get around the problem. When eggs are out of the diet, pathogens lose their favorite food and have to resort to other food sources in the liver. The particles from eggs can completely leave the cells of the liver within 90 days as long as you are avoiding them altogether during that time.
- **Dairy:** A pathogen food source. Also highly mucus forming, causing mucus to collect within the blood vessels and cells of the liver, which weakens the liver's personalized immune system. Like eggs, you can completely rid dairy particles from the liver's cells if you're avoiding it altogether.
- **Cheese:** Though it fits under the category of dairy, it deserves its own mention here because it has recently been reported as a longevity food. It's not; it

doesn't protect you. This is an example of how science bends to certain interest groups. Cheese is another food source for pathogens that hinder and damage the liver. It's the ultimate diabetes-creating food, though often mistaken as a great food for diabetics. This is a disastrous misunderstanding that makes you wonder what other health advice out there is completely backward. Cheese is also responsible for creating stagnant, sluggish, fatty livers and like other dairy, weakens the liver's immune system by creating mucus within the blood vessels and cells of the liver. If you're a cheese lover, stick to enjoying it on special occasions while working to do positive things for your liver in between, or try nut cheese as an alternative.

- **Hormones from food:** These are extremely disruptive to the liver's ability to manage, produce, and organize the body's own hormones. The liver can make a positive out of the situation by neutralizing and storing some of these more-toxic hormones from food to later trap and defuse adrenaline, as we examined earlier in the book. That's not an endorsement for consuming them, since the liver can already do that with the body's own old hormones. Food hormones start leaving the liver quickly when you're looking after it, and after 90 days, you can get rid of all the poisonous hormones that the liver doesn't decide to hold on to as bait to neutralize fresh adrenaline.
- **High-fat foods:** A diet that's high in radical fat—regardless of whether it comes from a plant or animal source, whether healthy or unhealthy fat—is hard on the liver. You saw plenty of evidence of that throughout [Part II](#), “The Unseen Storm,” [Part III](#), “The Call to Battle,” and [Chapter 35](#), “The High-Fat Trend.” When you start tending to your liver, fats start breaking out of it immediately. The full process could take some time and will happen naturally; as all the other troublemakers are leaving your liver, it will keep getting less fatty and less fatty and less fatty.
- **Recreational alcohol:** Heavy drinking is known to create hangovers, and this has spawned a trend of diners, restaurants, and pubs offering hangover “cure” menus of waffles, pancakes, French toast, bacon, eggs, hash browns, mozzarella sticks, biscuits and gravy, cheese fries, French fries, grilled cheese, omelets, and the like. The thought is that after getting drunk, it's best

to consume a lot of heavy, greasy food to “soak up” the alcohol. This couldn’t be further from the truth. The reason people have a hangover appetite is because during their alcohol binge, they starved their livers. Not only can the liver not function well when it’s inundated with alcohol; it becomes starved of nutrients—so after recreational drinking, our livers need glucose replenishment. The problem with standard hangover meals is that they’re a combination of fat plus sugar, which continues to inhibit the liver from restoring its glucose reserves. That prompts people to overeat, thinking more food will sop up the alcohol and satiate them, when what they really need to satiate their hunger and help their livers recover is the right *kind* of food, free from the interference of fat. For more on alcohol and the liver, see its entry in the Pharmaceuticals Group.

- **Excessive vinegar use:** Vinegar saturates the liver, causing a drunken effect, meaning that it slows down the liver’s ability to function and operate properly. It’s almost like vinegar should come with a warning that says the liver shouldn’t operate heavy machinery when under the influence of it. While it’s not as bad as what alcohol does to the liver, there is a similarity. Apple cider vinegar is the best out of all the vinegars to use; it has some positives to balance out the effects of fermentation, though you still don’t want to overdo it. The cleansing process will start immediately when you start working on your liver. Within a month, you can rid all the vinegar from it.
- **Caffeine:** Causes a thinning effect on cell walls in the liver. Cells usually recover quickly from this, though the constant use of caffeine makes the liver’s job of defending itself harder. Continually thinned cell walls make them more susceptible to pathogen invasion, such as from viruses, which can cause cell damage. Caffeine has a deeper saturation rate in the liver than many of the other problematic food troublemakers; it tends to go to all three layers of the liver. It has a very quick release from all three. You can get rid of all the caffeine stored in your liver in one week of caring for it.
- **Excessive salt use:** Is salt good or bad? Every decade in the health world, the trend seems to switch back and forth. The real answer is that a little healthy salt can be okay; sea salt or good mountain rock salt here and there is

tolerable for your liver. A pinch of these salts in your life is not going to hurt it. It's when we overdo salt, particularly the wrong salt, and when we overdo salt within a high-fat diet that we need to be cautious. Fat cells tend to encapsulate salts, which in turn dehydrate the fat cells. When a fat cell is forced to be dehydrated, it becomes denatured and not as easily removed from the body, bloodstream, or liver. Denatured fat cells tend to stick around and collect in the liver—so the more salt in the diet, the more fat tends to denature and stay there. Too much salt also dehydrates organs, muscles, and glands. The heart and liver, for example, need to sustain a certain amount of hydration, and excessive use of salt in its raw form conflicts with this. It's dehydrating to the brain, too. Even though the brain runs on sodium as a neurotransmitter chemical, that sodium needs to be derived from a food itself, not salt added to food. A common mistake in natural health right now is to add salt to water, thinking that it's healthy when it's really not. We should be adding celery and celery juice, coconut water, spinach, sea vegetables, lemons, and limes to our meals, because their naturally occurring sodium won't dehydrate our organs. It's actually very good for the liver, in part because this natural sodium clings to toxic, dangerous salts from poor-quality foods and helps bind onto and draw them out of the body while replacing them with a special subgroup of sodium the liver really needs. It also stabilizes blood pressure, bringing it down when it's too high and up when it's too low, and it doesn't denature fat cells. As with the other problematic foods, toxic salts and their residue start to leave the liver immediately when you're tending to it. They can exit the liver altogether within 90 days.

- **Gluten:** Feeds pathogens inside the liver. This is another troublemaker you can remove from the liver completely within 90 days.
- **Corn:** Another fuel for pathogens in the liver that can leave the liver in 90 days of caring for it.
- **Canola oil:** Contains undiscovered chemical compounds that are harsh to the liver, causing liver cell weakness. Takes six months to rid.
- **Pork products:** Their higher fat content and specific variety of fat slow down liver functions, which speeds up fat cell collection and weakens the liver's

immune system. How long it takes to completely leave the liver depends on how much pork was consumed over a lifetime and how much pork fat has collected in the liver.

Pathogenic Group

This is the troublemakers group that's responsible for the misunderstanding of autoimmune disease. Pathogens are at the top of the food chain—they're the sharks of the liver, eating all the poisons in their path—so the key to getting rid of them is eliminating their fuel sources. When you take their food away, they either starve or leave the liver to eventually exit the body. Cleansing pathogenic fuel and waste matter also makes room for the liver's immune system to go after pathogens, because these other troublemakers confuse it. Lifting that fog allows the liver's immune system to really identify, tag, and hunt down these pathogenic invaders. When you're working on your liver, viral toxins start leaving immediately and continue to cleanse out as you're doing what you need to do. The amount of time it takes to free the liver of pathogenic infection depends on how aggressive the pathogen is and how long it's been in the liver, what kind of supplements you take, and how regularly you follow that supplement protocol (see the next chapter for a suggested list). In addition to supplements, focus on taking away the fuel from these pathogens so they starve over time.

- **Viruses and viral waste matter:** Leading the way among troublemaking viruses is EBV with its over 60 varieties. EBV's viral waste (neurotoxins, dermatotoxins, byproduct, and viral corpses) is toxic, too; these are the poisons responsible for hundreds of symptoms and conditions, ranging from fatigue to rashes to aches and pains to floaters in the eyes to tingles and numbness. Other viruses that make trouble for the liver include HHV-6 all the way up through the undiscovered HHV-9, HHV-10, HHV-11, HHV-12, HHV-13, HHV-14, HHV-15, and HHV-16; cytomegalovirus; and the over 30 varieties of shingles. To tame any viral presence in your liver, avoid the viral triggers you can read about in *Medical Medium* and *Thyroid Healing* (many of which overlap with the other troublemakers you'll find in this list) and keep your eye out for antivirals

mentioned in the next chapter to help you with viruses and viral waste matter, which can end up in all three levels of the liver.

- **Bacteria:** *Streptococcus*, *E. coli*, *C. difficile*, *Staphylococcus*, and *Salmonella* are a few of the more common bacteria that can cause trouble for the liver, and you've especially read a lot about strep in earlier chapters. What you won't see in this list are the bacteria associated with Lyme disease—if you're interested in that topic, refer to *Medical Medium*. Bacteria go to all three levels of the liver.
- **Food-borne toxins:** We take great care to avoid coming down with trichinosis and food poisoning. The thousands of microorganisms, many of them uncatalogued and highly toxic, that live in raw fish, poultry, meat, and eggs (commonly on the outside of the shells) are usually killed off with proper cooking methods. What people don't realize is that once these living pathogens are killed, they don't just disappear. They become toxins. For example, when we cook a piece of chicken, we're concerned about killing off the *Salmonella*. We don't think about how the dead *Salmonella* could still cause harm. Most of the time, people don't feel the effects of these toxins because the liver deals with them. They do build up, though, and in some cases can cause horrendous, acute sickness. These troublemakers tend to settle in the subsurface of the liver.
- **Mold:** If someone is exposed to toxic mold, whether inhaling it or eating it, it finds its way to the liver by way of the lungs or intestinal tract. There are different varieties of mold toxins, some more aggressive than others. Overall, mold is a *trigger* in that it lowers the liver's immune system (and other parts of the body's immune system), in some cases allowing a viral explosion to occur. It's not a *cause* of disease, even though illness is often blamed on mold. As *Thyroid Healing* examines, many different symptoms that are truly viral get blamed on mold, yet mold itself is not the problem. That's why one person can be exposed to mold and exhibit no symptoms while for another person, it's a potent trigger—the difference is whether or not someone has an underlying viral issue poised to wreak havoc. Mold mainly goes to the liver's subsurface level. While some mold cleanses immediately and the rest could take anywhere from three to six months, you could get rid of all the mold and

still be dealing with symptoms, because they're really viral. They could stick around for another year or so as your body sends the virus packing and starts to recover.

Chemical Industry Domestic Invasion Group

When you make a choice for your own life, that's up to you. What's not right is when others' choices affect your life without your say-so. Smoking used to be a prime example of one person's choice affecting scores of others. With smoking now banned from many public buildings, that's gotten much better; you don't have to be subjected to cigarette smoke's toxins in the way you once did. With the troublemakers in this list, you don't get the same freedom. Unlike asking a friend to stub out a cigarette, you can't ask the person next to you on the train to wash off their perfume. You can't ask the dentist's office to extract the years of air freshener chemicals out of its walls. You can't ask the plane where you're about to spend six hours to purify its air for you. We live with these domestic invaders all around us, and what we can at least do to protect ourselves is limit their use in our own lives—and work on cleansing them. When you begin rescuing your liver, these troublemakers start leaving the liver within a week, and you could expel most of them within three to six months.

- **Plug-in air fresheners and scented candles:** Even if you don't use these in your own home, it doesn't mean you're not exposed in stores, doctors' offices, public restrooms, or friends' homes. Even if you find their smells pleasant, you can be guaranteed that your liver has a clothespin on its nose. When we inhale the scented, heated oil from these seemingly innocent units in the wall or the chemically saturated wax from fragranced candles, their chemicals end up in the surface and subsurface levels of our livers.
- **Aerosol can air fresheners:** Exposure to these comes from the same sources as above, and they can also settle in our livers' surface and subsurface levels.
- **Spray-bottle air fresheners and mists:** Commonly used to spray and deodorize furniture, these find their way to the surface and subsurface levels of the liver.

- **Cologne and aftershave:** Even if you avoid direct skin exposure by not using them, it's still possible to get inhalation exposure when you're close to someone wearing them. They end up in the surface and subsurface levels of the liver.
- **Perfumes and conventionally scented body lotions, creams, sprays, washes, shampoos, conditioners, gels, and other hair products:** Be careful what you purchase in the toiletry aisle. In your quest to smell fresh and clean, you could be washing yourself down with chemicals that will burden your liver by landing themselves in its surface and subsurface levels.
- **Hairspray:** While hairspray isn't as popular for everyday use as it once was, if you covered your hair with it back in the day, the chemicals that you breathed in and absorbed into your skin could still reside in your liver. As you've read, it's a myth that your cells completely renew every seven years. Though liver cells do replace themselves over time, old cells can contaminate new ones, which is how your liver could still be holding on to ancient hairspray. It tends to settle in the surface and subsurface levels of the liver.
- **Hair dye:** There's conventional hair dye and there's nonconventional hair dye. Whenever you can, opt for the more natural version; even though it can still have a toxic effect, it's much better. If you feel it doesn't "take" quite right, apply it twice to get the color. Conventional hair dye is very hard on the liver. This alone can be a trigger for perimenopause, menopause, and postmenopause symptoms. Usually around the time of this change, women are coloring their hair and using the most conventional, toxic dyes ever to cover their grays. They end up at the doctor, being told they have hormonal problems, when the problem was really the hair dye getting into their livers — hair dye seeps into your skin and bloodstream and travels directly down into the liver. For a woman who starts coloring her hair in her late 30s, it's the ultimate trigger for a perimenopause diagnosis, with no one realizing the truth: that hair dye chemicals are feeding EBV in her liver. Conventional hair dye goes to all three levels of the liver.
- **Talcum powder:** While it's easy to think of this one just on the skin, it's a fine dust that also gets into the lungs and the intestinal tract by way of the

mouth—when you pat talcum powder on your body, you're inhaling it and eating it at the same time. It finds its way to your liver, where it's toxic, settling in the subsurface and surface levels.

- **Conventional makeup:** If you're not used to reading the small print on cosmetics, the ingredients in some would shock you. The makeup industry also has secret proprietary blends and recipes that they don't include on the ingredients list—concoctions that they hide from the consumer—because revealing them would mean divulging them to the competition. That's been the case for over a century. The chemicals and even heavy metals in items like foundation can soak into your skin, and you end up ingesting a certain portion of whatever lipstick, lip gloss, or powders you use. Luckily, cosmetic companies came to realize lead wasn't safe along the way; it was a staple in cosmetics of yesteryear. Aluminum and copper, though, are still going strong as ingredients today. Makeup components find their way to the liver's surface and subsurface levels.
- **Spray tan:** When this covers every inch of the body, it can cause a particularly toxic situation for the liver; it actually suffocates the organ because the skin can't cleanse, and the skin is part of the liver's relief when getting rid of poisons. Spray tan itself goes to the subsurface of the liver. Since it prevents the skin's release of toxins, though, the application of spray tan makes it so that the deep, inner core of the liver gets oversaturated by other troublemakers that aren't able to get out through the skin.
- **Nail chemicals:** Nail polish, remover, and adhesive are notorious for their fumes, which is part of what makes them troublemakers. Nail polish contains paint thinner to keep it from hardening when it touches your skin—and it's very common to get nail polish on the cuticles and the skin next to the nails. Polish remover ends up all over the finger, which gives it a chance to soak into skin and get into the system. These chemicals end up in the liver's subsurface level and deep, inner core.
- **Conventional cleaners:** These traditional cleaning solutions, used in household, office, and industrial settings alike, contain ingredients that can burden the liver both when breathed in and when the skin absorbs them. This includes

countertop sprays, all purpose solutions, waxes, floor scrubs, and window cleaner. If you're not the one applying them, it doesn't mean you're free. Spending time in any area where they're used, though less potent when you're not the one applying them, is still exposure. These settle in the liver's subsurface level and deep, inner core.

- **Conventional laundry detergent, fabric softener, and dryer sheets:** These products enter the lungs and skin easily and from there go straight into the bloodstream and find their way to the liver. Many conventional laundry products are created from petrochemicals. While they may seem clean, your liver feels dirty afterward; they leave a gift of toxicity behind. These troublemakers tend to stay in the surface and subsurface level of the liver. Depending on the brand and design of the chemical, it could find its way to the deep, inner core.
- **Dry-cleaning chemicals:** These end up in the lungs, especially when you've just picked them up from the cleaner's, as well as on the skin. It's expensive all around—dry-clean-only clothes usually have a high price tag, plus you pay the fee to have them laundered, and at the same time, your liver pays a high price. These chemicals usually end up in the subsurface and deep, inner core of the liver.

Pharmaceuticals Group

As I mentioned earlier in this book, some medications for certain circumstances can be lifesaving. There are times when they are truly necessary. The opposite occurs with many medications as well, with life-threatening situations arising. When we're not given answers from medical communities about how to heal chronic illness, then our illnesses can go on far too long, neglected due to lack of information from medical research and science, and we may find ourselves using medications to try to suppress symptoms. What we need to be is aware: aware that excessive use can burden the liver, aware that different prescriptions provided by different doctors who aren't all on the same page (or different self-prescribed over-the-counter medications) can create a cocktail your liver doesn't like, and aware that even without taking a single medication in your life, you can end up with them in your

system. (When people who *are* on medications eliminate them, those pharmaceuticals end up in the water supply.) Once you've started to care for your liver, these can start coming out of the liver immediately. The total amount of time it takes depends on the pharmaceutical and how much you consumed over the years. It can take up to two years for the majority, provided you're not still using them—although if you are actively taking a medication, I respect that. It doesn't mean you can't work on healing your liver. There's so much poison that the liver has to work on ridding from so many sources; working on that, as well as working on feeding your liver so it can do what it needs to do, will help your liver be able to handle the pharmaceuticals you have to take.

- **Antibiotics:** Among other applications, prescribed regularly for cold and flu, childhood ear infections, sore throats, coughs, UTIs, acne, and also for sufferers of chronic illnesses such as Lyme disease. You could have been on antibiotics so early in life that you don't even remember. These troublemakers, which contain petroleum, tend to go to the liver's subsurface level and deep, inner core.
- **Antidepressants:** If you've been on one or more of these, you know it. They settle in the subsurface level and deep, inner core of the liver.
- **Anti-inflammatories:** Commonly taken by sufferers of injuries and chronic pain. They spread out among all three of the liver's levels.
- **Sleeping pills:** Medications for insomnia settle in the subsurface level of the liver.
- **Biologics:** These immune system suppressors commonly prescribed to sufferers of chronic illnesses such as MS and intestinal disorders such as Crohn's and colitis go to all three levels of the liver.
- **Regular immunosuppressants:** Often given to MS and other chronic illness patients, they go to all three levels of the liver.
- **Prescription amphetamines:** Prescribed for conditions such as ADHD and other focus and concentration issues as well as low energy. They settle in all three of the liver's levels.
- **Opioids:** Given to chronic pain sufferers, these drugs dive down to the liver's deep, inner core.

- **Statins:** Commonly taken for high cholesterol, when the irony is that cholesterol problems derive from the liver and statins worsen the liver's condition, elevating cholesterol even more, although the medication hides this. Statins easily hit the liver's deep, inner core and are highly toxic to the area.
- **Blood pressure medications:** You know if you've been on these. They stay in the subsurface level of the liver.
- **Hormone medications:** These include both conventional and bioidentical hormone therapy, human growth hormones, and human chorionic gonadotropin (HCG) diets. They go to the surface and subsurface levels of the liver.
- **Thyroid medications:** You'll know if you've been on these medications, though you may not know that they are not actually targeted to heal the thyroid or address the underlying thyroid condition and are instead another form of hormone medication. (More in *Thyroid Healing*.) Some of the top prescribed medications out there, these also go to the surface and subsurface levels of the liver.
- **Steroids:** Often prescribed for mystery symptoms and illnesses as well as following surgery and dental work, they go to all three levels of the liver.
- **The Pill:** Causing liver problems more often in women at younger and younger ages, this one lands them very early perimenopause or other hormonal diagnoses because it makes the liver so toxic so soon. One way it causes trouble is by restricting and atrophying blood vessels in the liver. This goes to the deep, inner core.
- **Alcohol:** This doesn't just apply to the alcohol in a bottle for recreational drinking. Alcohol is in virtually all toiletries, including hair care and skin care products and cosmetics. It's also manipulated in the pharmaceutical world and added to many over-the-counter and prescription medications, and not just the liquids; in dry medicines, it's often there in altered, dehydrated form. Alcohol is extremely hard on the liver, causing it to become sluggish and stagnant and injuring liver cells. It slows down the liver's ability to run its over 2,000 chemical functions for the body and makes liver lobule elves drunk so

that Santa's helpers can't make toys. (Don't let this stop you from using hand sanitizer with alcohol in it. Killing off the flu virus or strep from a public bathroom or other germy spot outweighs what your liver's going to receive from that sanitizing wipe.) Alcohol saturates all three levels of the liver. Within 90 days of looking after your liver, you can get out all the alcohol residue.

- **Recreational drug abuse:** One of the few differences between recreational drugs and hardcore, more aggressive pharmaceuticals is that with these drugs, there are no prescribed dosages. You won't hear a dealer say, "Only do a half a gram every other day for a week." While you would think that quality control is far superior with pharmaceuticals synthesized in labs and that the dangerous, harmful chemicals from homemade street drugs make them a completely different beast, it's not that simple. No one knows how many mistakes are made in medication production. The reason drugs' impact on the liver is so much more severe goes back to dosages—there are no standards or regulations to keep them under control. Drugs go to the subsurface and deep, inner core of the liver.

Toxic Heavy Metals Group

Like the Chemical Neuroantagonists Group, toxic heavy metals spread out among all three levels of the liver and are also commonly passed down through the bloodline from generation to generation. In addition to the ones from yesteryear that we're born with (which, as you read about in [Chapter 28](#), is how babies' livers can already be burdened), we get exposed to toxic heavy metals throughout life. Here's just a small sampling of sources, some of them liver troublemakers in their own right: pharmaceuticals; city water; jet fuel falling from the sky; water pipes; restaurant food prepared with heavy scraping of metal pots, pans, and tools; nanosprays applied to manufactured items; and pesticides, herbicides, and fungicides. Find more below. When it comes to avoiding toxic heavy metals, question everything that's offered to you, including medical treatments. These troublemakers can start to leave your liver in your first week of caring for it. If you regularly apply the Medical Medium heavy metal detox described at the end of [Chapter 38](#), you can get deeper

layers of toxic heavy metals out of the liver within a year or two. This detox method is devised to kick metal out of the liver, among other spots in the body, in a way that your system can handle, so that they get eliminated, not recirculated. The Liver Rescue 3:6:9 also gets heavy metals out of the liver so they can't get reabsorbed. Plus it makes getting heavy metals out afterward much easier. These are responsible methods for getting heavy metals out of the body so a sensitive person does not react, unlike with other so-called heavy metal supplements, cleanses, and techniques out there.

- **Mercury:** Among other sources, we can get exposed when handling batteries in devices; getting metal amalgam dental fillings (or getting them removed); encountering pesticides, herbicides, and fungicides; eating fish; taking fish oil supplements (even the high-quality ones that claim to be mercury-free); and when spending time in lakes and other water sources. It's also the toxic heavy metal that's most easily passed down through generations, so the mercury in your liver could be truly ancient.
- **Lead:** Handling lead pencils as a child; getting exposed to lead paint (whether currently, when trying to remove it, or in the past, when it was fresh); using water that's flowed through lead pipes in old buildings or, in newer homes, pipes with lead sealers; and encountering pesticides, herbicides, and fungicides are a few of the ways you can end up with lead in your system. Also beware of growing a vegetable garden close to a house where lead paint was used on the exterior. The surrounding soil could now be saturated, and you could end up with lead-marinated vegetables.
- **Aluminum:** We come into contact with this one all the time, from cans to foil to takeout containers to kitchen tools to makeup to tap water to sunblock to pesticides, herbicides, and fungicides.
- **Copper:** The liver is really highly sensitive to copper. Since this metal is commonly used for pipes, copper particles can end up in our drinking and bathing water, plus it's frequently in pesticides, herbicides, and fungicides. There's a new trend of copper everything in the kitchen; try to be cautious about pots and pans and go with ceramic whenever you can; your liver will thank you.

- **Cadmium:** This one is in the air, falling from the sky, so it gets into our systems when we inhale it. It's in pesticides, herbicides, and fungicides, too.
- **Barium:** Another troublemaker we inhale when it falls from the sky. It also lands on our skin, plus it's in the water supply, so we ingest it. Often used in medical imaging treatments.
- **Nickel:** An ingredient in pesticides, herbicides, and fungicides.
- **Arsenic:** Another component of pesticides, herbicides, and fungicides.

Radiation

Your liver sponges up radiation you're exposed to from plane flights, X-rays, MRIs, CT scans, cell phones, food and water, and the continual atmospheric fallout from past nuclear disasters. Even if you haven't gotten an X-ray in your entire life, it doesn't mean your mom or dad didn't get one before you were conceived. That radiation is inherited and doesn't go away unless you work on getting rid of it mindfully. You can also absorb radiation from being near someone who just got an X-ray. It goes to all three levels of the liver. Within the first three to four weeks of looking after your liver, radiation particles can start to release. For the more penetrating radiation, it requires the right supplements and seaweeds as well as the heavy metal smoothie from *Thyroid Healing*, which is also a radiation yanker. It takes some time to get radiation cleaned up, usually about one to three years altogether. It could take longer, depending on your exposure.

Excess Adrenaline

- **Prolonged overabundance of adrenal stress:** Oversaturation with adrenal hormones can overload the liver's ability to perform its everyday responsibilities. It also provides extra fuel for viruses such as EBV as well as bacteria. When the liver is able to neutralize adrenaline, it stores it in its subsurface level. When the liver is forced to store caustic adrenaline because it is too overburdened for neutralization, it stores it in all three levels and usually takes one to three weeks to cleanse when you're working on it.
- **Adrenaline-based activities:** Bungee jumping, rollercoasters, sex, skydiving, surfing in large waves, snowboarding, BMX riding, car racing, and cliff

climbing are a few examples of adrenaline-rush activities. They're better than being on drugs; adrenaline sports are big achievements. If you're engaging in them, you also want to make sure you're taking care of your liver, just like you make sure your bungee cord is maintained and your parachute packed just right. Instead, someone usually celebrates a successful jump from a plane or a win at the track with a good ale, giving the liver even more to do. Not much of the corrosive adrenaline from one of these high-intensity activities can get neutralized, because it comes at the liver in such a rush. It usually saturates all three layers of the liver, the same way a sponge gets soaked when you sop up a spill, and takes one to three weeks to leave again when you're caring for your liver.

Rainfall Exposure

Rain is not clean like it once was. Rainfall is filled with toxins from the sky and air, from radioactive particles to barium to jet fuel to dust particles blowing off agricultural land, both domestically and from other countries, that contain residue of pesticides, herbicides, and fungicides. It's also filled with a tremendous amount of vaporized material that spews from chemical factories globally. These chemicals are not documented by any agency; they're rogue byproducts that fill the atmosphere by the hundreds of thousands. All of these toxins come down in the rain, and if it gets on us, our skin instantly absorbs it and the chemicals find their way to our livers, settling in the subsurface level.

This is where we should herald our livers as practically God for what they see and catalogue and understand about these thousands of different vaporized chemical agents in their most homeopathic, minute form. What the liver witnesses is beyond all of research and science's grasp and imagination. I'm not talking about acid rain here—that term doesn't even scratch the surface as far as what's actually in rain. There isn't a lab on the planet that can catalogue the contaminants in a raindrop. People who are sensitive, whether with neurological symptoms such as fatigue and joint pain or with chronic issues such as sinus problems, will tend to worsen for a couple of days after being soaked in rain.

I'm not trying to scare you here. Luckily, our livers are masters at cleaning up rain toxicity. The liver should get the Nobel Peace Prize for identifying and handling it. Enjoy your walks in the rain—and take care of your liver so that you *can* enjoy them. Past rainfall chemical exposure can leave the liver 100 percent within two weeks if you're taking all the right measures. Then the next time you get hit with rain, any toxicity from it can leave your liver within three days. This is partly because rainfall is active, living water with healing properties within it, which the liver can extract and use immediately. That living water codes and defuses any chemicals it contains to make them easier for the liver to work with.