SIMPLE TRUTHS
Simple health secrets to protect your family

Dr. Myron Wentz & Dave Wentz
with Donna K. Wallace

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DEDICATED TO

My father, Dr. Myron Wentz, and my son, Andrew
Dave Wentz

As the son of a renowned health scientist, Dave Wentz learned early on about the impacts of nutrition, lifestyle choices, and the environment on human health. With terms like “oxidative stress” and “industrial toxins” serving as common topics at his family’s dinner table, Dave naturally felt drawn to the fields of health and nutrition.

Dave received a bachelor’s degree in bioengineering from the University of California, San Diego, before joining his father, Dr. Myron Wentz, in the formation of USANA Health Sciences, a nutritional supplement manufacturer. Dave helped to develop the company’s marketing strategy, establish product formulas, and prepare the company for its debut in 1992. Since that time, he has served in a number of managerial positions, including vice president of strategic development, executive vice president, and president.

Today, Dave serves as USANA’s chief executive officer, directing and maintaining the company’s vision and overseeing the corporate governance required of a publicly traded company. Under his leadership, USANA has more than tripled its net sales from $134 million in 2002 to $426 million in 2008. Dave also has focused on making the company more environmentally friendly as well as an exceptional workplace for more than 900 employees. Because of his tireless dedication to making USANA a model of excellence, Outside magazine recently recognized USANA as one of its 30 Best Places to Work, and in January 2009, Dave was named one of America’s Powerful CEOs 40 and Under by Forbes.com. He has also served as chairman of the board for the Direct Selling Association, a national industry group.

Dave lives with his wife, Renee, and young son, Andrew, in Salt Lake City, Utah, where he enjoys playing goalie for his indoor soccer team, skydiving, and skiing Utah’s famous powder.

Myron Wentz, Ph.D.

At the age of 17, Myron Wentz felt forever changed when his father passed away suddenly from heart disease. With hopes of having a positive impact on the health of people like his father, he chose to pursue a career in the scientific field, ultimately receiving a Ph.D. in microbiology with a specialty in immunology from the University of Utah. In the years that followed, Dr. Wentz watched as cancer and heart disease claimed many more family members, including his mother and his older brother. These losses, though difficult to bear, were the catalyst for a lifetime of work and innovations in the fields of human health and nutrition.
Dr. Wentz founded Gull Laboratories in 1974 as a one-man operation with the goal of developing viral diagnostic assays. Soon, several of his assays, including the first commercially available diagnostic test for the Epstein-Barr virus, were FDA-approved for marketing to hospitals and clinical laboratories. However, Dr. Wentz recognized that disease prevention was as important as disease detection; so, in 1992, he launched USANA Health Sciences, a state-of-the-art manufacturer of nutritional supplements and health products. In 1998, he took his vision of health a step further when he founded Sanoviv Medical Institute, a fully accredited medical facility that blends advanced medicine with a holistic approach to healing.

In recent years Dr. Wentz has turned his attention to charitable concerns, traveling worldwide as a medical missionary for the non-profit Children’s Hunger Fund (CHF). In 2006, Dr. Wentz received the Children’s Champion Award from CHF, the organization’s highest honor, for his work and generous donations on behalf of hungry children around the world. He also has funded two medical centers in Uganda and Cambodia to care for impoverished children and families, and he is the principal contributor for the Wentz Concert Hall and Fine Arts Center at his undergraduate alma mater, North Central College.

In recognition of his scientific and humanitarian endeavors, Dr. Wentz was honored in June 2007 with the Albert Einstein Award for Outstanding Achievement in the Life Sciences from Global Capital Associates. The Albert Einstein Award salutes leaders whose vision and commitment have contributed to the critical advancement of vital lifesaving and life-enhancing technology to benefit mankind.

**Donna K. Wallace**

Donna Wallace has penned fifteen books with accomplished speakers, physicians, therapists, and celebrities. Her recent projects include *The CREATION Health Breakthrough* (Hachette, 2007) with Dr. Monica Reed, Chief Medical Officer of the largest admitting hospital in the U.S., as well as the international bestselling book *What Your Doctor Doesn’t Know About Nutritional Medicine* (Thomas Nelson, 2000) with Dr. Ray Strand, member of USANA’s Scientific Advisory Council. Donna’s writing career is built upon the foundation of thirteen years of study and teaching on university campuses. Her own story of reclaimed health gives her strong personal reasons to support Dr. Wentz’s breakthrough solutions. Donna and her family live in Bozeman, Montana.
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Having just arrived on an early morning flight to Salt Lake City, I’m eager to reach the headquarters of Dave Wentz, recently named by Forbes.com as One of America’s Powerful CEOs 40 and Under. I admire my soon-to-be-co-author’s accomplishments and smile at the good fortune of getting to know a man who has played such a vital role in impacting the world. Budding trees and stunning xeriscaping contrast the drama of the signature mountain ranges that surround Salt Lake City and create the backdrop of an impressive glass building.
I’m escorted to Dave’s office, a grand corner affair with spectacular views where a treadmill takes prominent position near the neatly organized desk. Upon my entering the room, Dave stands with a smile of recognition and greets me with a polite hug. His personal, casual demeanor instantly puts me at ease with the reassurance that this corporation is a family in which I am now included. Although we had met briefly before, I get the distinct notion that every person who makes his or her way into this company is offered a similar embrace.

Our meeting has been arranged to take place in the company’s Creative Room, a bright space with a hodge-podge of bean bags, ottomans and armchairs. Wraparound whiteboards create a backdrop for the ultimate brainstorm session. We’ll be fueled with nutritious snacks: health bars, mixed nuts and seeds, water, and fresh juices that have been delivered in lieu of coffee.

I’ve been commissioned by Dave’s advisory team to partner with him to write a book. As a collaborative writer with high-profile authors, I have the opportunity to travel to one’s city to step into the author’s life and begin the process of architecting a project like this one. As we become acquainted, I find this new author surprisingly authentic. Fit and tan, his skin shows little sign of aging. He’s doing something right. He seems shy, but with a focus that burns through any possible inhibitions; he gets right to down to it.

**Dave:** I’m out of my comfort zone in writing a book, but I’m willing to give it a shot for a topic that is worthy of print. There are hidden truths about the things we consume and use every day that have a direct impact on our health—yet governing agencies don’t have time to regulate them, medical professionals choose to ignore them, and regular people don’t even realize they’re an issue. I’d like to talk about these things. Raise awareness and get people talking about these things. It is only then that we can heighten safety efforts.

I’m soon caught up in Dave’s passionate stance on humanity’s most pressing needs. His matter-of-fact perspective is sharp and to the point. He speaks with conviction, which removes any doubt that every single individual, regardless of age and location, can begin making simple changes that will change the trajectory of his or her life.
Dave: I want to share some of the knowledge I’ve gained through my experience as the leader of a health company and as the son of a renowned scientist. [He begins to fire off surprising one-liners that hit close to home.]

- I’ve never met an unvaccinated child with autism.
- That “new car smell” is dangerous enough to deploy an airbag.
- Those silver fillings in your mouth will one day keep you from recognizing your own reflection.
- Your microwave is not a T.V. Don’t watch your popcorn pop.
- If you wouldn’t drink it, don’t put it on your skin.
- When laundry touches your skin, it’s like a nicotine patch.
- Any chemical found on your clothes is also swimming in your bloodstream.
- Why do we poison our houses to kill a fly?
- Plastic may steal your family’s future.
- Be careful whose advice you buy.
- Science cannot move quickly enough to ensure product safety.
- You are your own best advocate.

Not only do I want to hear more, I NEED to hear more! Realizing how naïve I am to the dangers in my own home, I’m feeling a little frightened and have started to mentally make an inventory of all things that need to change. I’m ready to discover the insights Dave and Dr. Wentz have for us.

Dave: Daily, I hear or read unbelievable ironies of what we consider safe. When we hear about safety in the same discussion as preservatives, prescription meds, or chemicals in cleaners, it’s like saying the safe level of smoking is one cigarette per day. By doing this, the government has just inadvertently said it’s safe to smoke.

Levels ‘of safety’ are created when manufacturers know a substance is harmful. This is not to be confused with good things (that your body needs) that are bad in excess. You never hear about levels of safety for the consumption of bananas.
I’m talking about products that are dangerous in tiny amounts from the very start. Formaldehyde, chlorine—ingredients we see in our everyday products. Fluoride is the asbestos of tomorrow.

Saying that your body can handle a little cyanide does not make it good for you or un-harmful. We have become convinced that for convenience sake we can stand a little damage. How much radiation do you think is safe?

Donna: You don’t seem to be a stereotypical CEO. I mean, you are not talking about best practices or how to retain employees, though I’m sure those concerns take up a good portion of your day.

Dave: My reality takes place in the wake of my father’s scientific research. Dr. Myron Wentz, one of the world’s leading authorities on cellular nutrition. My dad has always been relentless in his pursuit of health breakthroughs. Because of my unique upbringing and my position as CEO of this health company, I’m surrounded by truths that I assume people know already. But too often they don’t.

Donna: You used the word “relentless” for your father’s pursuit. Why the urgency?

Dave: Right. That’s a little question with a big answer. A portion of that answer stems from my father’s belief that due to the onslaught of toxins in the environment coupled with poor nutrition and lifestyles, our children may be the first generation of kids that may not live as long as their parents. I mean, the evidence isn’t hard to find. It’s all around us.

[He pauses.] For this reason I didn’t want to have children of my own. I struggled with the concept of bringing a child into this world that might suffer and die before I do.

But check this out. [He pulls out a photo; we’re looking at a black and white sonogram.]

This is our baby! My baby. I’ve watched this little kid doing skydiving maneuvers, repelling off the insides of his mom’s uterus during the sonogram. At night when I’m arranging the pillows so Renee can rest an hour or two, I’m concerned if her body is getting what she needs. I feel the baby kick or roll and I’m filled with wonder, but I worry about our child’s future.
**Donna:** If you had a half sheet of paper and seven minutes to leave your message to the world, to your children and their children, what would you say?

**Dave:** [Dave stalls to think while reaching for his leather binder.] Okay, here it is, the half sheet. Knowing what I do, I’d write:

Human life is too valuable to go unnoticed. Notice it. Protect it. Count the cost of convenience. We can’t wait for science to decide what is safe for my family or yours.

[He sits in an indefinite pause with his sight still set on the sonogram photo of the child who is coming soon.] It’s easy to feel despondent about the onslaught of toxins bombarding our bodies each day, but I am filled with hope for my child’s generation. You know why? We are learning how to be aware—how to be our own best advocates. Parents are getting involved with ensuring their families’ safety.

Our children are fortunate to follow in the footsteps of men and women like my father. [His face brightens with a smile, and he hands me the photo with unabashed pride.] This is the grandchild of a legendary man who has literally saved hundreds of thousands of lives. When we go to the doctor’s office to get the back of our throat swabbed for strep or mono, they are likely to be using one of my father’s diagnostic kits. He could have stopped there. But when Dr. Wentz realized that diagnosing disease didn’t have a far enough reach, he went back to cellular technology to discover answers for degenerative disease and prevention. We still have a long way to go, but I see people taking notice and making choices to live well and live long. This is why I know I have to write this book. I’m not the only one bringing a child into this world.
After hearing Dave’s vision for his future family and respect for his father’s work, I was not prepared for his candid and seemingly rebellious approach to science in general.

**Dave:** Scientists are a strange lot. I was raised to question everything, except of course, what my parents told me. *[He laughs and I can’t help but laugh along with him.]*

Questioning the common, accepted practices is what allowed my father to build innovative companies and create the competitive differences that made those companies prosper—having a huge impact around the world.

With every discovery and with each new product that arrives on the market, there is a lengthy gap for information to travel from the lab to the public. It takes too long to measure conclusive evidence. By the time a product may be determined to be unsafe, lives will have been lost. Are cell phones dangerous for pregnant mothers? How would we know? Nine months is not enough time to test the effects. To make claims, science must first obtain the funds and then proceed with rigorous and detailed processes. It all takes time.

Science can’t go fast enough; we must rely on global wisdom—on personal logic before science gets there. Each one of us must take in all the information available to us with a large measure of common sense, and a willingness to forego convenience. We must reawaken our senses to what we know to be true.

Dave explains how he sees life as a continuing education program wherein we are constantly gathering new information (and yes, that comes from technology and scientific research as well as using new perspective to re-evaluate) and applying it in combination with what he calls “old knowledge.”

**Donna:** How did you become aware of this “old knowledge”?

**Dave:** Does every kid grow up thinking his or her parents are the most embarrassing and strange characters on the planet? Some get the Cheerleader who is positive and bubbly but not the brightest bulb on the porch. Some survive the Anchorman who is loud and the center of attention. Some kids come packaged with the Jock parent who has to compete in
everything and win. Maybe some kids get lucky enough to have “normal” parents. I wouldn’t know. I had the Scientist, with giant unpronounceable words, complicated descriptions of the simplest things and opinions on every action and reaction in our daily lives. [*The laughter comes easily once again.*] I remember my dad telling the neighbors to let my sister and I eat the dirt. ‘It will build up their immune systems,’ he said.

**Donna:** Not your typical dad in the burbs.

**Dave:** Dr. Wentz has always had an endless desire to learn, which took him to scientific meetings all over the world. That also allowed me to see a great deal of the world at a very young age. At fourteen, I learned that the Germans were very much into detoxing by sweating in a sauna and then rolling in the snow or taking a cold plunge. I was shocked and fascinated by this, not because of the health benefits I was learning, but because they did it in the nude. . .and it was co-ed.

**Donna:** I can’t imagine! Or maybe I can!

**Dave:** There were some really cool aspects to being the son of a mad scientist with his sights set on bringing widespread change. But I sometimes wished I had a dad who would come home, kick his shoes off, toss a frisbee to the dog. I don’t know. . . .maybe shoot hoops in the driveway or something. But my father has a one-track mind. Even though he has a broad perspective and many different interests, he has one driving passion. He approaches everything from the viewpoint of a scientist, 24/7. It can be maddening sometimes.

My father’s vision of “True Health” never wanes. He is on a tireless pursuit of his Holy Grail—the next breakthrough to ease the world of suffering and disease.
Dave has some great stories: His father has been a student his whole life and has filled his free time with reading. Dave recalls how Dr. Denis Waitley, Dr. Wentz and he were out on a yacht in New Zealand. They had gone out for a cruise and anchored in a beautiful little bay.

**Dave:** Denis asked me if I wanted to go diving for abalone. I thought he was crazy because the water was freezing cold. He talked me into it because I had no idea what an abalone was and curiosity got the best of me.

We took a little dinghy into a cove and jumped into the cold water yelping with surprise. It was even colder than we anticipated. The water was about eight feet deep and Denis showed me how to dive down and pry the abalone off the rock. We collected quite a few and were beginning to turn blue, so we headed back to the boat. Upon boarding we heard Dad yelling from the upper deck, as if he might be experiencing some kind of seizure. Alarmed, we rushed up the gangway wondering what could possibly be the problem. There he sat, deeply engaged in the Maritime Almanac, with an article that pointed out that the Galapagos tortoise lives to be about hundred and fifty years. As Denis and I looked at each other in disbelief, Dad smiled and said, “I need to learn more about what they eat.” That’s the way his mind works. He never stops studying and learning. He wants to know about every form of flora, its possible life-giving properties and the effect it has on cellular nutrition.

Dave’s story, which is coming to me in bits and pieces while beginning to take on life and form, is full of intrigue and fascination—one of a world traveler. With a love of extreme sports, he has flung himself off cliffs so high above the earth and dived so far below the deep, his adventures rival documentary films. He’s traversed jungles and skied precipitous mountaintops, wined and dined with princes and world diplomats.

**Donna:** Would you say your father’s life has defined your career? How does that impact who you’ve become?

**Dave:** My sister, Julie, and I were always encouraged to carve our own path. We were always given the freedom to be who we wanted to be, but for me it’s taken place against a fascinating backdrop of my father’s work.
But just like any other family, we had routine daily living in between the adventures, and that's what has shaped my life more than anything. The difference is that my father has peered through a microscope for so many years, it's like he has x-ray vision. He sees things most people don't. What seems intuitive to us is mere logic to him.

For example, we know sniffing sharpies and glue sticks in junior high isn't the smartest idea. Dr. Wentz made sure that I witnessed for myself cells dying as a result of similar toxins seen through the microscope. Didn't leave much room for arguments on questionable trends. Needless to say, as cool as I think some tattoos are, I don't have a sleeve of them either.

[With a far off look, he seems to be contemplative for a moment before continuing.] Dr. Wentz speaks a language that only a small number of highly specialized people can understand. I'm technically studied in bioengineering, but I learned most of what I know by default. I've learned to see and understand the world in much the same way as my father.

Much in the same way that an immigrant's child must learn to communicate on a parent's behalf after moving to a new country, my life has centered around explaining what Dr. Wentz means in laymen's terms. I am my father's translator to the world. He understands what true health looks like through the microscope; and I make it simple enough to explain.

Donna: Simple Truth.

Dave: [Smiling in hopeful agreement.] Yeah. I hope so.

Donna: I like the sound of that.

Dave: I'm very fortunate to have the undergirding of my father's accomplishments, but I actually despise long, dusty lectures on scientific findings. I'm easily distracted.

Donna: What a relief it is to have someone who can just break it down for the common person.
**Dave:** I want to provide quick answers and practical solutions. I want to know what it is we can do to bring needed change in the next fifteen minutes—before the day is done.

**Donna:** That must be your business strength—a restless energy that makes a successful CEO.

**Dave:** The best team in the world has made me a successful CEO. You’ve met some of them. But, my father’s work extends far beyond my company. He’s now very focused on building hospitals in third world countries and partnering with the international charity Children’s Hunger Fund. He’s a marvel. Most of us can’t live life like that.

**Donna:** Do you ever entertain the idea of what it might be like to fall asleep without a single thought about translating your father’s message to one more person or another country?

**Dave:** On a typical day, the idea of caring for the earth and its billions of suffering people is exhausting. I care about the globe. God knows, I travel all over it every year—sometimes traveling 20 days out of the month. Don’t get me started on how much I hate airports! But I want to focus closer to home. I don’t know about you, but when I get to choose, I want to be home with my family. Yes, the world matters, but I can see it starting at home in my living room.

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**A book takes shape**

The time was flying by and we continued our chat over lunch. It was time to hammer down the mission of the book.

**Donna:** What can your reader anticipate?

**Dave:** I don’t want to write a comprehensive tome for danger-proofing one’s life. Changing a whole lifestyle can seem overwhelming, especially when people are so busy that convenience seems to be their greatest
necessity—and somehow even trumps optimal health. But a simple book of “how and why” that will help people live better and live healthier? We can do that.

People assume that I grew up in some sort of health bubble. Truth is, I didn’t. Answers have come across our lifetime. My dad by no means knows it all, but his advantage is that he doesn’t let ignorance on a subject be an excuse to stick to the norm and not rock the boat. If he suspects a hidden issue, anything from bottled water to tattoo ink, he researches it until he discovers an answer. Sometimes it is not the right answer. Scientific theory is based on the premise that each new theory will either be disproven eventually or added to. A true scientist never speaks emphatically as if he or she has the final answer. Dr. Wentz has definitely switched opinions on various issues as he gathers more information, but the important thing is that he is still ahead of the curve on numerous health issues in every facet of our lives. [A boyish grin appears.] To this day I harass my dad for feeding me Vienna sausages as a kid when we went on camping trips.

Now after years of studying health and prevention, the thought that he actually fed me processed pork and chicken dogs canned in a salty, preservative-laden jelly is appalling to him. He didn’t know what the ramifications were then, but he certainly knows now. He is constantly learning so that in the future, when he looks back, there will be fewer instances for which he will later want to kick himself.

Donna: How refreshing it is to know this about the man who is now the foremost authority in cellular nutrition.

Dave: We’re not creating fire here. After searching through everything from volumes of scholarly journals to goofy marketing scams, I want to provide a simple, trustworthy guide. I want our readers to get maximum information in a format that’s quick and easy to read, with tons of solutions—a whole range of solutions that fit any budget. So that no matter who you are, you can make a handful of changes that may alter the course of your life. No agenda or mind-numbing statistics, just the freedom to make your own choices.
**Donna:** Little changes make a big difference across a lifetime.

**Dave:** Yes, it’s about learning what’s out there and realizing the ability to maximize one’s choices. There are many ways to live well. But health always comes back to the cell. When our cells are healthy, we’re healthy.

We all know that ridding our homes of toxins and making more natural, healthy choices goes hand in hand with the green movement. What do you have to say about that? Our healthy choices are bound to be good for the planet too; I figure it’s an added bonus.

Living green is on everyone’s minds right now. My company has made some big strides in lessening our impact and reducing our waste, and I think that it’s important for all of us to do. But I always remind people that our environment isn’t out there, its right here, in us, surrounding us. It is either making us well or making us sick.

We are cellular beings that interact with every substance, no matter how miniscule it is, entering and passing through our bodies. What we’re after here is true health—making the space in which we live as safe as it’s meant to be. If we can accomplish this, we’re golden.

With the mission of the book taking shape, we’d soon have to decide the framework on which we could hang these contrasting ideas wrought by father and son together. What would be fun and engaging? Practical? Different? We tossed around ideas that proved to be entertaining, but wayward, descript, but dull, until finally a thought occurred to me. I wondered if Dave would go for it.

**Donna:** Dave, have you ever thought about how we can know a person in several different venues and even consider ourselves friends without ever taking that person home?

**Dave:** Uh, huh. . .
Donna: We’re getting to know one another a little, right?

Dave: Why does this feel like a loaded question?

Donna: Well. Being who you are, I want to know how you live—what’s in your house, Dave?

Dave: [One eyebrow lifts.] My wife, Renee, and I did a massive remodel recently—I don’t recommend it.

Donna: And?

Dave: The whole crazy process has probably taken some months off my life. We intentionally got rid of some things such as old carpet and went with easier to clean hardwood floors with non-toxic glues and finishes. We made sure to include air cleaners and water filters. More importantly, we’ve been making gradual changes that will have long-term effects.

Donna: Interesting. I’m kind of getting a picture. But... do you ever get late night munchies? What is in your pantry?

[Dave is smiling but not answering the question.]

Donna: I’m inviting myself over.

Dave: Is that right? [I realize he doesn’t look entirely worried.]

Donna: Come on. It’ll be fun. Call Dr. Wentz and have him join us for a tour. It’s time to reveal.

This one’s for you!

Getting to know Dave in an office setting was intriguing, but it was, well, safe and philosophical. Neither of us wanted to provide more theory or information. Dave insisted that we explore solutions—what each of us could do in the next fifteen minutes that would make a difference. He’d roll up his sleeves, armed with a trash bag and shovel, if need be, in order to bring about change. The Simple Truth lies in knowing why we need to take action and then making it happen.
What hits closest to home? Home.

Where do you live? Your house may be a temporary hangout or a “step home.” It might be your dream home. Whether we plan to reside there for three years or thirty, home is the environment in which we eat, sleep, work, and play—ultimately the backdrop for our health or disease. This book is framed in the blueprint of a house so that you can accompany us room by room, sharing in the running dialog between Dr. Wentz, Dave and myself as we take a tour through Dave’s house.

One of Dr. Wentz’s most famous quotes is this: “We live too short and die too long.” He has made it his life’s work to change that. A visionary in cellular science, he believes that to live fully means lowering the risk for all disease and maximizing health at the cellular level. A variety of factors that we come into contact with every day of our lives will impact our ability to live fully until we die. These not only include what we choose to eat and drink, but also where we sleep, what we put on our skin, and how we prepare our food.

We’ve heard more than our fair share about living in a “toxic soup.” Research studies can be discouraging and we can become desensitized to hearing that there is danger at every turn, much like listening to the nightly news about bombings in the Middle East. Instead of adding another onion to the soup, we’ll point out some hidden hazards—the price we pay for the advancements we have made as a human race. But our focus here is to provide a range of simple solutions to minimize your risk while creating a healthier environment where your body can thrive.

No matter where you live, on any given day you can get started with a handful of easy changes that will add up—with an ongoing cumulative effect—that might just save your life or the life of a loved one.

If we’re honest, convenience and budget have a lot to do with determining what changes we choose to make. Here you’ll find short bits of information,
along with quick, cost-effective action steps, as well as deeper science for those who want it. After discovering shocking truths and the science that unlocks the mystery behind them, we'll put into perspective the dangers and proactive choices that will become as obvious as gravity in the months and years to come.

**Special Features**

Each section will focus on a part of your world that has many surprising ramifications to your health while providing insight into the inner workings and the unknown effects on your body. Because each of us absorb and retain information differently, we have provided something for each type of reader (or non-reader as it may be). With a quick flip through the pages you'll find:

- Dave’s simple commentary on the most pressing health concerns for you and your family
- Doc boxes written by Dr. Wentz with brief descriptions of what is happening on a cellular level (watch for the microscope)
- Cartoons that provide a quick visual for important information and are easy to remember
- Quizzes so you can measure and choose which solutions are best for you
- Common metaphors rather than lists of convoluted statistics
- Health risks associated with dangers as well as antidotes to combat those dangers
- A range of simple to expensive solutions

You’ll find scientific truths that took a lifetime to discover, combined with a description of how it all works in simple metaphor. Dr. Wentz, known for his long answers to short questions, but always in hot pursuit of the truth, has valuable insight into most things—a kind of x-ray vision—the result of having looked through a microscope for so many years. Certain that anyone can understand biological complexities in familiar comparisons, Dave, our narrator, will walk
us through each page, translating and pointing out which items in each room present our greatest challenges.

I'll be the one asking questions. My inquiries come from right where you are. I am a career woman, a wife, and a mom without a science background. I want practical answers for my home just like you do.

In case you are wondering: Dave apologizes now to his father's colleagues who appreciate Dr. Wentz's articles in scientific journals. Please visit www.simpletruthsthebook.com to get a fuller spectrum of the science behind Dave's candid, cocky approach to life.
Our Tour Begins

The dialog I’ve been sharing with Dave picks up when we arrive at the front door of his home, a stylish, single-story loft in historic downtown. Dave’s father, Dr. Myron Wentz, arrives soon after. A visionary who has dedicated his life to creating innovative solutions to the world’s health problems, Dr. Wentz shares his son’s passion for making the home a safe, non-toxic place.

I would soon learn that, like a dialog between Bono and the Edge, conversation with Dave and Dr. Wentz comes packaged with its own rhythm of science, humor, and life application.

We’re introduced and I marvel at these two men I’ve seen on stages around the world. Here they are, the same people we’ve come to know: comfortable with one another, with a shared respect for their stark differences and uncanny similarities. I’m instantly fascinated by the exchange between father and son.

My curiosity is piqued. I love houses; but I’m seriously wondering just what we’re going to find in this one. What will we see through Dr. Wentz’s eyes? We pause inside the front door:

This feels a little awkward,” Dave says, glancing first at his dad with a shared secret, and then back at me. “I think we need to start in the bedroom.”

“Oh?” My question is met by Dr. Wentz’s knowing look.

“It is the most important place to start because this is where we spend the majority of our time at home. Humanity, I mean. We sleep in there.”

Yes. Of Course.

Dr. Wentz says, “I imagine this is also where life begins for most of us.”

He gives Dave a knowing pat on the back and motions that we’re ready to embark.

Dave leads the way. “Let’s get started, shall we? Would you like anything to drink?”

The three of us walk down a corridor, past the gentle sounds of a waterfall. I’m surprised at how clean it smells; like there’s really no smell at all.
Master Bedroom

The master bedroom—crown glory of our homes—promises a spacious and luxurious retreat. Research shows, however, that when it comes to deep and restful sleep, our bedrooms aren’t measuring up. For most of us, our most personal room in the house needs a serious makeover; one with solutions that reach beyond designer paint or the latest furniture from the Pottery Barn. Some surprisingly simple changes to your bedroom may improve sleep, vitality, and lovemaking.

Whether you prefer simple or elaborate, sexy chic or cottage comfy, the first room in your home to clean up and clear out is your master bedroom. With Dr. Wentz’s insight and Dave’s simple solutions, you can make yours a refuge of healthy rejuvenation.
Sleep

The master bedroom often plays host to any number of activities, from TV watching to treadmill time. It’s little wonder that we tend to overlook the bedroom’s most important role—our sanctuary—for relaxation, lovemaking and sleep. We easily spend at least 1/3 of our lives in the bedroom. I chose to open the book with this room, because our vitality starts here. Without notice, we have allowed some dangers in that could be siphoning life rather than replenishing it. And our own actions may be first in the line-up of suspects.

We’ve all heard a thousand times that adequate sleep is critical to maintaining good health, but it’s often the first thing we allow to slide when life gets in the way. Nature gives our bodies a built-in signal to begin slowing, to prepare for complete rest in our sleep. The dog knows her bedtime (the neighbor’s dog usually doesn’t); yet, we humans think we’ve outsmarted our need for sleep.

For most of us that means that we make a half-hearted attempt at showing up to our beds when we’re too exhausted to do anything else. Lying down doesn’t automatically win points for rejuvenating sleep. Getting to the bedroom on time can be a challenge, but once we do get there, several key factors will determine whether we are able to get both the quantity and quality of sleep we need. And just like legit work involves more than punching a time clock, rest involves our whole being, not just the body.

**The Way You Make Me Feel**

Select a single statement below that best represents the way your bedroom makes you feel.

- (5 points) Anxious. I’m never relaxed in this room.
- (4 points) Restless. I seem to do everything here BUT sleep.
- (3 points) Exhausted. I’m too tired to notice.
- (2 points) Ambivalent. It’s just a bedroom—who cares?
- (1 point) Comfortable. It’s a nice place to get away.
- (0 points) Peaceful. It’s my favorite room in the house.

Your bedroom ambiance score: _________

Keep track of all of your quiz scores for a complete assessment of your master bedroom health at the end of this section. And don’t worry if your scores appear low—this might be one time in your life when a low quiz score is something to brag about.
Sleep. What about it?

I confess, I’m a guilty party when it comes to rest: I’ve got a demanding career; I want to spend time with my family and friends; I have sports and hobbies I love. And I don’t want to miss out on the fun! My philosophy is that life is all about opportunities and experiencing them to the fullest; when I’m sleeping, I am sure I am missing something fantastic. Whether trying to complete an important report at work or getting in a late-night dinner with friends, it’s easy to give up an hour or two of sleep to get everything done. But even if short-changing our zzz’s can pull us through in a pinch, we cannot be at our best, physically or mentally, without optimal sleep. Without obeying nature’s forced “time out,” we will not be able to enjoy the great experiences we look forward to, especially when we’re exhausted or ill.

As much as I hate to admit it, sleep holds the reins of our body temperature, blood pressure, secretion of hormones, and lots of other functions of mind and body. It’s most important function may be to allow the brain to do its work. The body needs sleep or meditative periods of time to process information and make sense of what we’ve been bombarded with during the day and to store it away in memory. In the typical adult, even a week of getting two to three hours’ less sleep than the optimum amount needed each night seriously undermines mood, alertness, and performance. If the brain is not allowed time to reboot, we’ll soon have some serious memory problems. Longer-term sleep loss is pure torture to the body. It may hasten the onset of diabetes, high blood pressure, and memory loss, or make these conditions worse.

**FACT:** Lack of sleep is as toxic as any chemical
We are escorted past large, modern paintings to the master; a room that is simply decorated while exuding classic elegance. A fresh breeze puffs the drapes, providing a glimpse of the majestic Wasatch Mountain range to the east. The morning sun bathes the room in gold-specked light, landing on the king-sized bed located on the north wall. Beside it sits a little bassinet.

**Dr. Wentz:** [walks into the middle of Dave’s newly renovated bedroom and turns a 180.] This is nice, Dave. I like the colors you chose. But the real question is, how have you been sleeping?

**Dave:** Baby Wentz has a schedule of his own. Need I say more?

**Dr. Wentz:** You’ll find a groove...and then he will start teething!

**Donna:** I guess you’re not alone. Research says Americans are in bad shape when it comes to sleeping well.

**Dr. Wentz:** We’ve always heard that an average of seven to eight hours of sleep each night is a necessity for rebuilding cells. But did you know that too little or too much sleep shortens life? Actually 6.5 hours of sleep a night is the ideal. Each person’s body is different, but for healthy adults, our optimal amount of sleep fits in a window of about five and eight hours.

**Dave:** So sleep isn’t necessarily a “one size fits all” formula like we’ve been taught.

**Dr. Wentz:** Not really, no. Your body has an internal clock—a small group of cells located in your brain—known as the *suprachiasmatic* nucleus.
This “clock” is set by the level of light your eye receives, and establishes the body’s natural sleep-wake rhythm. When the sun begins dipping below the horizon, your body naturally begins winding down for the day. Isn’t that something?

[Dr. Wentz walks over to inspect the blinds over the window.] Hey, I think you might get too much light from that street lamp. Are you going to replace these blinds?

Dave: Maybe. I wonder if light affects us more than our level of exhaustion.

Dr. Wentz: We’ll have to look into that.

Donna: That winding down business—you mean, the heart beats more slowly, blood pressure lowers, respiratory movements are less frequent, muscles relax. . .

Dr. Wentz: Yes. One of the functions of our body clock is to prevent everything from happening at once. Kidney function drops at night, so you don’t have to get up several times during the night to relieve yourself. This also means that there are good and not-so-good times for other activities such as eating, thinking, and having sex.

Dave: Right. Renee is probably not getting the sleep she needs because the baby’s eating clock is set on turbo during the dark hours.

Dr. Wentz: Yes, young infants and their different patterns of sleep can present a challenge!

[He takes a big sniff of Dave’s duvet before looking at the label on the mattress.]

Donna: What is he doing?

Dave: He’s checking to see what chemicals he can smell. Indoor air pollution is one of the top health risks today. It’s due to the fact that we now include so many synthetic substances in the construction of our homes and toxins in the products we use. Combined with the lack of air circulation in many homes, indoor air is usually much worse than outdoor air in almost every part of the U.S. There’s a lot you can do in choosing products that carry a lower chemical burden than the usual stuff in the stores.

Your Inner Clock

Periods of sleep alternating with periods of activity are important because every one of the hundred trillion cells in the body has its own “inner clock” with cycles of activity that correspond to the passing of 24 hours. Light, air, temperature, what is resting against the skin, they all influence our quality of rest.
EKG of Life

If you had an EKG of your lifestyle what would it look like? Would it display a rhythmic balance of work and rest or would it be flat lining?

We know that without needed rest the body becomes ill, but without physical work it won’t be able to get that rest. While work often comes between us and our sleep quantity, the kind of work we do also has a direct link to our sleep quality.

What you consider “work” may be short-changing your ability for sweet and satisfying slumber. What I’m doing right now—sitting at a desk—doesn’t count for my definition of work. My brain is getting tired, but that’s about it. My butt is starting to feel paralyzed, my legs are restless, my neck is stiff and my belly muscles are lax. What is the cost, the trade off, of tech advancements? Desk jobs don’t stress our muscles and joints. Not only are our lungs and heart getting flabby and sluggish, we can’t sleep. When we give our minds over to passively surfing the Internet throughout the day and night, remaining ever-engaged with technology and machines, the result is that our bodies cannot enter deep and restful sleep. Many of us are spending the majority of the day not really working, followed by a night where we’re not really resting.
Throwing a Frisbee with your dog in the park is a truer definition of work than what most career people do each day.

True. Throwing a Frisbee and chasing your dog around the park is a truer definition of work because when you pile back into your SUV with the smelly, panting canine, you experience a tangible sense of accomplishment as well as a good physical workout—unlike the same amount of time spent surfing the web. According to J. Matthew Sleeth, M.D., work should accomplish something tangible and positive, while stressing our muscles. Pedaling a stationary bike or climbing a Stairmaster, although a necessary alternative to outdoor exercise, doesn’t count as “work” because it doesn’t produce a tangible result and it isn’t accompanied by the fulfillment of finishing a task—like weeding a flower bed or building a wall.

What if you hate gardening and lack masonry skills? Office workers can be intentional in finding creative outlets for good, strenuous labor. I found mine playing goalie for an indoor soccer team. I’ve noticed my sleep is much more sound after an evening spent diving for the soccer ball. The straining of the muscles coupled with heightened oxygen and blood flow is what allows the mind to be clear after hard physical work. Without physical work or play (yes, sex counts for play), cells become so depleted of energy they begin to malfunction, making you feel drowsy, lethargic, and unable to concentrate. Nerve cells demand the chance to shut down and repair themselves.

There are a number of practical things we can do to improve the body’s ability to heal during those critical night hours of cell rebuilding. Most of them are based on the fact that our bodies have a built-in clock. Rather than fight the inner clock that nature gave us, we can use it to help maintain good health.

RESOURCES
Jerome M. Spiegel, M.D., writes in the November 2003 issue of Scientific American about a healing method called chronotherapy, which offers new ways to reset your body clock. He also offers patients tips on how to be aware of their body’s natural cycles and to optimize their care with physicians.
Check your caffeine intake. More than 200 mg (two cups of brewed coffee) and you may experience irritability, irregular heartbeat, and difficulty falling asleep and/or the ability to sleep soundly. Commit to gradually cutting back. Try decreasing the amount you drink by half a cup a day. Also be aware of caffeine in green teas and supplements.

Keep an accurate count on your alcoholic drinks. Refrain from drinking alcoholic beverages closer than one to one-and-a-half hours before bed.

Eat a minimum of three hours prior to pillow time. If your digestive system, which involves the largest portion of your body, is working to break down your late dinner or snack, precious energy is being expended rather than stored for the next day’s activities.

Consider taking a melatonin supplement. Available in health-food stores, this supplement helps reset your body clock. The dose varies between 0.5 and 5 milligrams. You may have to experiment with dosing.

If you can’t fall asleep within 10 to 15 minutes, get up and do a quiet activity that will get your mind off your temporary insomnia. Soak in a warm bath, do some meditation and breathing, listen to music, or try reading Moby Dick.
Work hard and play hard.

Set a bedtime and stick to it.

Allow time to settle before “calling it a day.” Find a regular, evening ritual that allows you to slow down, organize, straighten and prepare for the next day.

- At least one hour before bedtime, turn off distractions that stimulate your mind such as television, computers and artificial light.
- Count back eight or nine hours from the time you have to get up. This is your new, nonnegotiable dim-the-lights time.
- Get into a routine of preparing your mind and body for sleep by relaxing with meditation, stretching, prayer, and breathing. This nightly routine is as important as your morning workout.

Easy solution:
Establish an out-of-bounds rule for the bedroom. Don’t talk about business or topics that cause relational or emotional distress.
Sleeping Environment

One of my favorite children’s books is the classic *Where the Wild Things Are* by Maurice Sendak. Max, the book’s young hero, falls asleep one evening and journeys to the land of the “Wild Things,” scary monsters that Max must conquer.

Things go bump in the night and imaginary ghouls may be part of our childhood books, but in reality, the scary stuff isn’t what might be hiding under the bed—it’s actually what is lurking in your mattress, hiding in the sheets, or hovering over your pillow. Flip on the lights and take a closer look at the mystery of what lurks in dark hidden places. Even if you are successful in getting plenty of shut-eye, you may still be subjecting your body to unseen dangers that take a cumulative toll on your body over time. Spending 8 hours in bed (that’s a third of your life) makes it very important that you do so in a non-toxic environment. Many of us are sleeping with the enemy—air that is heavy with fumes, chemicals in our sheets, and electronic devices that seep EMFs (electromagnetic fields) from every corner of the bedroom.

While becoming aware of your sleeping environment, cleaning out the clutter is a great place to start. Also give serious thought to what you can do to create sleep with as few distractions as possible as well as to the quality of your bedroom air. With complete and regular rest you will have an amazing sense of well-being. There are a number of things you can do to improve your sleeping environment to maximize your body’s ability to rebound and “heal” during those critical hours of cell rebuilding.

**The ABCs of ZZZs**

Answer the following questions and add them up for your sleep inventory total.

1. How many nights a week do you fall asleep somewhere other than your bed (e.g. couch, child’s room, etc.)? ______
2. How many nights a week do you get fewer than 6 hours of sleep? ______
3. Rate on a scale of 0-5 how you typically sleep, with deep sleep being 0 and restless sleep being 5. ______
4. How many nights a week do you fall asleep with the TV on? ______
5. On average, how many times a night are you awakened by a disturbance? (Be sure to consider light, noise, your partner, children, pets, etc.) ______
6. Rate on a scale of 0 to 5 how light your room is at night, with pitch black being 0 and light as day being 5. ______
7. How many nights a week do you feel too hot or too cold in bed? ______

Your sleep inventory score: _________
**Darkness and sleepy hormones**

Is your room dark? I mean really dark? Our bodies produce a hormone called melatonin that triggers the body to sleep. Unfortunately, this hormone is only produced when the body believes it is nighttime, which is perceived by darkness. If you are sleeping in a room with light sources that stifle the body’s production of melatonin, you will not get the type of sleep your body needs to be truly healthy.

**Temperature**

What is the best temperature for sleeping? Rather than a specific range (the typically recommended 65–72 degrees Fahrenheit), experts agree that whatever temperature the sleeper finds comfortable will have a positive effect on how well and how long you snooze. Why? “When you go to sleep, your set point for body temperature—the temperature your brain is trying to achieve—goes down,” says H. Craig Heller, PhD, professor of biology at Stanford University. “Think of it as the internal thermostat.” If it’s too cold or too hot, the body is having to work to achieve this set point. When the body is working, it is not resting.

That mild drop in body temperature actually induces sleep. Common sense says that if you are in a cooler (rather than too-warm) room, it is easier for that to happen. When the room becomes uncomfortably hot or cold, you are likely to wake up. Ralph Downey III, Ph.D., chief of sleep medicine at Loma Linda University found that the comfort level of one’s bedroom temperature affects the quality of REM (rapid eye movement) sleep, the stage in which you dream.²

Dr. Wentz recommends sleeping in a room cool enough so that you can at least cover most of your body with a sheet, which blocks neurotransmitters in your skin from being stimulated by light.
Having problems sleeping?

- Look for sources of light around the drapes/blinds, night lights, bright clocks, etc. Anything that may trick the body into believing it is not night.
- Sleep in a room cool enough so that you can at least cover most of your body with a sheet.
- Take a melatonin supplement to ensure an adequate melatonin supply every night. Melatonin production slows as we grow older, so this is especially important for adults and seniors.
- Declutter! Feng Shui says energy grows stale in piles of laundry and stuff lying around.
- Allow yourself the simple luxury of making your bedroom more relaxing and desirable.
- Aromatherapy can be a special treat to help you relax. Try pure essential oils of lavender or vanilla.

Air
If you aren’t afforded the wide-open sleeping spaces of *Lonesome Dove*—where you stretch out beneath a dark, starry, sky with the song of prairie grass swaying and coyotes howling in the distance—you may need to take a deep breath and reconsider the quality of your bedroom air. Is your bedroom air moving and fresh or is it stale or heavy with chemical fragrances. Whatever your answer might be, you’re sucking it down by the lungful all night long. You may need to renovate your air.

We are hearing less about industrial air pollution thanks to the Clean Air Act. If you were around prior to 1970, you may remember the dense smog in cities like Los Angeles. We still tend to think about pollution being outside and we worry about breathing exhaust while sitting on the freeways or try not to think about the recycled stuff on airplanes. But the main source of air pollution is close to home—it’s in our homes actually. With each passing year, the outdoor air has improved while indoor air has ramped up on the polluted scale.
Americans spend 90 percent of their time indoors, at home or in offices, according to the EPA. Breathing air that is two to five times more polluted with organic pollutants—volatile organic compounds (VOCs) which include petrochemicals, dry cleaning agents, chemicals for cleaning, and fire retardants. We don’t need to ask how they got in. We put them there. And we need to make them go away.

**Creating Fresh Air**

Despite the severity of our indoor air situation, there are basically only two remedies for improving air quality: 1. Get rid of the source of pollution. 2. Clean the existing polluted air by filtering or allowing clean air to enter through an open a window.

A variety of styles and quality levels of air cleaning devices are available on the market to control and remove allergens that trigger allergy, asthma and other respiratory and immune system problems. These devices are designed to remove certain types of pollutants, but none of them can effectively remove both particles and gases. Some technologies, such as HEPA filters, require larger fan or motor capacity to be effective than is available in many residential home ventilation systems or portable units. Worse, some of the air-cleaning products now on the market are health hazards in themselves. So-called ‘ozone generators’ are sold as air cleaners. They produce low concentrations of ozone that have little effect in removing most indoor air contaminants, but are high enough amounts to irritate the lungs and even cause adverse health effects.

**Indoor Pollutants fall into two major categories:**

1. **Particulate matter,** which includes dust, smoke, pollen, and particles generated from combustion appliances, as well as biological particles associated with tiny organisms such as dust mites, bacteria, and molds.

2. **Gaseous pollutants** that also come from combustion processes, but are in gaseous rather than particle form, and also come from the use of products such as adhesives, paints, cleaning products and pesticides.
In my cell culture laboratory I created the perfect environment for cells to grow, including the precise ratio of gases. I wanted to prevent my cultures from experiencing a version of today’s “sick environment syndrome” by avoiding all toxic contaminants and providing the correct balance of nutrients and other environmental influences.

Of course, our bodies aren’t provided the ideal environment I can develop in a lab. We have to adjust to air that has all kinds of pollutants and particulate matter. Pollution is harmful not only because it puts toxins in the air, but also because it reduces the percentage of oxygen available. It’s important to have the air as clean as possible so that you have the full benefit of oxygen, which is required for all biochemical and metabolic reactions in the body.

A concern today is maintenance of the proper balance of the ratio of gases in our environment. Across its lifespan, the earth has maintained a stable atmosphere of 78% nitrogen and 21% oxygen by volume. The remaining 1% of the atmospheric gases is made up of trace gases. These include the noble gases, very inert or unreactive gases, of which the most abundant is argon. The remaining trace gases include the greenhouse gases, carbon dioxide, methane, nitrous oxide, water vapor and ozone, so-called because they are involved in the Earth’s natural greenhouse effect which keeps the planet warmer than it would be without an atmosphere.

We are seeing increases of the major greenhouse gases, particularly carbon dioxide and methane, which could result in a small but significant change in the ratios between the trace gases and oxygen and nitrogen. In addition to possibly causing a rise in the temperature of the earth’s environment, this shift could be causing challenges to healthcare professionals.
One of my main concerns with a master bedroom having direct and easy access to the master bath is that there is also direct airflow between the two. Without substantial air flow through open windows or efficient exhaust vents, the products used in the bathroom such as aerosols, hairsprays, nail polishes, removers—chemical gasses, basically—accumulate in an invisible cloud, which floats in over the bed and hangs. You breathe these gasses while you are sleeping. [See Section 2]. Keep in mind, these are not “particulate matter” that can be picked up by HEPA filters.

The best way to reduce the risk of indoor air pollution is not through filtering or purifying but by controlling or eliminating the sources of the pollutants. The first step to cleaner air is to eliminate what we can. Then we should filter or add fresh air for what we can’t. Throughout this book, we’ll be discussing products in each room that are polluting the air unnecessarily. By minimizing these, your home environment will improve remarkably. Ensuring the home has adequate ventilation with fresh outside air is the next most effective method of preventing the accumulation of noxious gases and particulates. Whenever the weather permits, simply open the windows and let the refreshing, cleansing breezes come in.

The old tradition of saying, “God bless you,” or “Gesundheit” when another person sneezes is derived in part from the old legend that one’s spirit temporarily left the body during the snotty outburst. The real danger may not be the sneeze or exhale; in certain rooms of the house, we should be saying a prayer each time we inhale! Do you often feel sluggish in the morning, unable to focus through a foggy brain? Do you suffer from headaches, asthma, allergies or congestion? Your cells may not have adequate oxygen to repair themselves. Your air may be a culprit.
Chemical sensitivity mimics symptoms of a cold or hay fever such as congestion, throat and eye irritation, headache, dizziness, and fatigue, among others. Symptoms may be as severe as asthma attacks and other respiratory illnesses. How you respond depends upon your particular level of sensitivity, which varies among individuals. Children and the elderly with respiratory problems are especially vulnerable.5

The practice or tradition of blessing a sneeze dates back to 77 AD. The custom originally began as an actual blessing by Pope Gregory in 590 AD. An outbreak of the bubonic plague was closing in on Rome and sneezing was thought to be an early symptom. Saying “God Bless You” was thought to be a common halt to the disease.

Also, another old legend said that your heart stops every time you sneeze. Saying “God Bless You” was supposed to ensure that you would continue living and your heart would continue beating.

_Gesundheit_ is the German and Yiddish word for health. When a person sneezes, German, Yiddish, and North American English speakers typically say “Gesundheit!” to wish them good health, serving much the same purpose as “bless you” in English or _À vos souhaits!_ in French.
- Open a window.
- Use your exhaust fan in the bathroom and/or keep the door closed.
- Keep your closet doors closed. We’ll talk about this later.
- Always be sure to check that heaters are not emitting dangerous fumes.
- Install an air cleaning system (see HEPA buying tips).
- Change furnace filters and air cleaner filters.
- Replace your pillow at least every two years and buy an organic cotton cover that goes between your pillow and the pillowcase for added barrier. You can buy one in linen and department stores as well as online.
- As snuggly as pets are, perhaps they shouldn’t share your bedroom if you experience sensitivities.

If there is no better way to better ventilate your home, consider the investment of an in-home HEPA air cleaner.
When choosing a quality HEPA air cleaner, here are a few things to look for:

1. **Size of Area and Air Exchange Rate Per Hour**

Your HEPA air cleaner should:

- have the highest air exchange rate per hour in any room or open area. Air cleaners are not effective through narrow hallways or doorways from one room into another.
- clean and exchange the air through its HEPA filter up to 15 times per hour in an average sized bedroom space of 12’ x 15’ and do a good job in an open room or areas up to 1000 square feet.
- include activated carbon to absorb and remove odors and out-gassing chemicals from the indoor air. Some of these carbon filters are mixed with a mineral called zeolite. The more activated carbon and zeolite, the more odors and out-gassing chemicals can be removed. High quality air cleaners include between 3 1/2 and 15 pounds of activated carbon. The carbon filters are normally inexpensive and easy to replace.

2. **Filter Replacement Costs.**

Know what the future after-market filter replacement costs will be. The cost may be a bit more up front, but most quality brands will be easier on the budget in the long run.

3. **Motor and Airflow Noise.**

Purchase a unit that is quiet enough so you can sleep while it is operating. A good HEPA air cleaner will be quieter because of its higher quality motors and airflow designs.

4. **HEPA Air Cleaners And Air Purifiers With Ultraviolet Light Systems.**

Some HEPA air cleaners and air purifiers include ultraviolet light systems that allow them to kill mold spores, bacteria and viruses. These are especially helpful for people with mold allergies or immune system problems, or people going through chemotherapy or organ transplants who cannot be exposed to viruses or bacteria.
Bed

What’s In a Mattress

TRUE OR FALSE?

Every night you are exposed to off-gassing from fire-retardant materials which pollute your cells with deadly chemicals.

True. In the name of safety and every good intention of stopping one item in your home from being as flammable as everything else around it, mattresses made after 2007 are treated with fire-retardant chemicals that are deadly to your cells.

Regardless of price, most new mattresses are made from the same basic materials: steel coils attached to a wooden frame, which is then wrapped in layers of padding to make the surface cushy. Padding is usually a combination of cotton, Dacron batting and polyurethane foam. Polyurethane foam is so explosively flammable that the insurance industry calls it “solid gasoline.” It’s drenched with a toxic fire retardant chemical—polybrominated diphenyl ethers (PBDEs)—which protects you from the remote possibility of a fire in your bed, provided your sheets and blankets won’t burn and that your house doesn’t catch fire.

As more regulating agencies move to ban these chemicals, the industry is working to find substitutes, but why not find a safe, simple answer right now? Organic mattresses are made with organic cotton and wool for the padding, and a latex core made from natural rubber from a rubber tree. Wool is a natural flame retardant, and unlike synthetic fillers and mattress covers, helps dissipate body heat and wicks away moisture.
While organic cotton mattresses like the ones on futons, tend to be very firm (hard as a rock, actually), natural latex mattresses (anti-microbial, anti-bacterial, dust-mite proof), provide wonderful support, which means less tossing and turning for you. Speaking of tossing and turning, is your bed roomy enough that your partner is not disrupting your sleep? Don’t let anyone tell you otherwise: size matters.

In Europe it’s a common sight to see comforters tossed out over the windowsill every morning. While this may not be common here in the U.S., have you ever slept on air-fresh bedding? It’s the best. Try it! Allow your bedding to air out. At the very least, don’t make it so soon after you wake up. Below you will find ideas to try that range from simple and inexpensive to more elaborate choices.

**Try This**

- Encase your mattress and pillows in organic cotton barriers or zippered encasing to protect from dust mite allergens.
- Replace treated bedding with items made with all-natural or organic fibers. All fabrics, unless specified, are treated with a chemical flame retardant or stain protection.
- If you can’t afford a new organic mattress, consider adding a pure wool or natural rubber mattress topper. The topper won’t stop your old mattress materials from off-gassing, but you can rest knowing you have put some distance between your body and the toxins.
- If you must buy a new synthetic mattress, unwrap it and leave it outside to air out for a day or two if possible.
- To shop for organic mattresses, platform beds and bed frames, organic and all natural bedding, or sleepwear try websites like this one:

Every day we see commercials starring ecstatic mothers who are never harried or stressed. Why is she smiling with that happy glint in her eye? We know why. Her nose is buried in freshly washed laundry that smells like a cool spring breeze. We have grown up believing that she is a better mom because her laundry is whiter, cleaner, and fresher than that of mothers using other leading brands.

Amazing.

What is truly amazing is that we’re buying it along with the products she’s peddling. We ask ourselves: isn’t it real? It smells just like lavender! We’ll sleep better in sheets that smell like lavender, right? We love our brand of laundry detergent. Loyal to our scent of dryer sheets, we are convinced we can sleep better surrounded by the scents we’ve come to trust and love. And we don’t want to change.

Companies bank on our love and loyalty to scent. What most people (who don’t grow up with scientists for dads) don’t think about is where those scents originate. Scientists donned in white lab coats and masks over their own faces wheel around on little stools using droppers to mix compounds until they’ve found a way to reproduce “natural” smells with the use of chemicals.

**NEWS FLASH:** You’re not smelling roses or lavender magically captured in that box of dryer sheets, you are inhaling toxic chemicals. Your nose may be tricked, but your cells aren’t. Cellular death is taking place while you snuggle down into that fragrant flannel pillowcase. If your sheets and pillowcase smell “good” like fragrance rather than the “good clean” after a rainstorm, they’re not clean. Your sheets are actually cleaner when they don’t smell like anything other than the cotton or fabric they are made of. Keep in mind that if your sheets resist wrinkles, they may be processed with chemicals.
Some of us like the comfort of snuggling up in warm jammies and others prefer the freedom of being in the buff. Whether you prefer sleeping in the nude or in comfy pajamas, what you put against your skin is very important. Especially if you like a warm cozy bed which opens your pores and lets unseen chemicals swim on in.

The skin is one of the body’s largest organs, and contrary to popular opinion, it is not merely a wall to outside invaders, but rather like a very fine mesh that allows tiny particles to pass in and out of the body. Not only should you NOT have chemical-laden fabrics resting against your skin—residual detergents and dryer sheet “stuff”—you do not want to constrict your skin with synthetic clothing and sheets so that toxins cannot be eliminated.

It’s okay to look great for a few hours a day in gorgeous synthetic fabrics, but when it comes to sleep, it’s “you” time. It’s time to free your body to relax and rebuild. If your preference is to be buttoned up, choose breathable organic cotton or silk. Wear it loose but without getting tangled.

**Silk. Is it a healthier alternative?**

Most people think of silk as the ultimate in luxurious fabric. Due to its smoothness, it is normally associated with sexy lingerie and bedding, but it could also benefit your health.

- Silk is a protein fiber more similar to wool than to cotton—one of the only few pure proteins.
- Silk is naturally hypoallergenic and resistant to dust mites, unlike duvets and pillows made from down, feather or polyester.
- Silk is 100% natural and contains many amino acids in common with the human body; these acids help moisture penetrate the skin.
- Silk is fine, durable, and light.
- Unlike cotton, which retains moisture, silk wicks moisture away from the skin.
- Silk duvets, because of their thermal criss-cross pattern, provide thermal properties at a fraction of the weight of traditional feather, down or synthetic fabrics.
Bed Placement

Santa Claus is not the only good thing that comes from the North Pole. You may have heard of magnetic bracelets and faucet attachments? Well, if you stop to think about it, you know the largest and most influential magnet is the one we live on, the one with opposing north and south poles.

Magnetic North

The earth’s magnetism is a result of its spinning core of molten iron and nickel, thousands of feet beneath its surface. The rise and fall in the strength of this natural magnetic field creates many of the biological rhythms in plant and animal life. Just like your compass points north, so should the headboard of your bed. By sleeping with your head to the north your body is aligned with the natural state of the earth.

Because of his knowledge of electromagnetic fields, my father has long placed his bed with the headboard on a north-facing wall in his home. But as a frequent traveler, he often finds himself in hotels where beds face any old direction. I still tease him about the time that I walked into his hotel room to find him talking with two hotel staff members. Looking around, I saw one empty-looking side of the room where dust bunnies still clung to the carpet. At first, I assumed he was discussing the carpet, but I quickly realized that they had just finished moving the king bed from the dusty area to the now-crowded north-facing wall. Dr. Wentz tried to explain that he’d be staying in the room for more than a week and wanted his body aligned with the planet’s magnetic energy. The staff members took their tips and left—I’m sure eager to tell their fellow employees about the kooky science guy in Room 1015.
Fuse boxes and heavy wiring generate invisible radiation, which scramble the delicate wiring of human cells.

**EMFs, Invisible Radiation**

Since the dawn of the industrial age, humanity has added to the natural magnetic pulls of the earth and atmosphere with amounts and frequencies of new kinds of radiation until we are awash in an ocean of electromagnetic fields (EMFs). Why is that a problem? The reason that man-made, ‘abnormal’ electromagnetic fields (EMFs) have such strong effects on our cells is that the number of EMF sources and their cumulative intensity is far greater than the body was designed to withstand. The human body is powered and regulated by extremely complex chemical and electromagnetic systems of its own; therefore, electromagnetic fields can cause serious disruption to the normal electromagnetic energies of the body.

You don’t have to live under a high-voltage power line to be subjected every minute of the day to EMF radiations that may have negative effects on your moods and metabolism. The wiring throughout your house is a source of EMFs, even when you don’t have a single light turned on. We’re demanding to have more outlets in newer homes. Every room contains multiple sources of EMFs, from stereos and televisions to microwave ovens and power mixers to electric blankets and alarm clocks to hair dryers and electric toothbrushes. EMFs are also found around, electric blankets, lamps, Wi Fi, Bluetooth and fuse boxes, which may be close to your bed.

The EMFs we are talking about are similar to those found under major power lines, which created cancer clusters and were major news until we got tired of hearing about it. News is only interesting when it’s new, and just like we’ve grown accustomed to hearing about cancer, Alzheimers and stroke, I’m concerned that we are being lulled into complacency after hearing frightening reports on cell phones, Wi Fi, and microwaves.
Our Electromagnetic Environment: Natural and Man-Made EMFs

The earth’s total electromagnetic environment is created by a complex interaction between the magnetic field around the earth—the magnetosphere—and the enormous power of solar winds. The solar winds are high-energy ionizing atomic particles—as well as x-rays, infrared and ultraviolet radiation, and cosmic rays—emitted by the sun. They travel at tremendous speeds millions of miles through space and bombard the outer layers of the earth’s magnetosphere. The magnetosphere protects us from much of the deadly barrage of radiation, but certain frequencies—such as visible light—get through, in varying amounts.

It’s easy to see how—unlike those produced by a simple bar magnet—the electromagnetic fields surrounding the earth have subtle, yet complex influences on all of the planet’s biological systems. Radiations from the sun interact with radiations from the earth itself, and weather, time of day, and seasonal changes can all further modify the electromagnetic environment. Many of the fields are extremely weak, and their effects are still unknown to science.

Across the periods of natural history, plants and animals have developed ways of dealing with these magnetic and electrical forces of the earth and the sun. Indeed, they have incorporated these forces into their structures and their metabolism. This is how migratory birds and butterflies accomplish their epic annual journeys, with clues from the position of the sun and the earth’s magnetic field. Even creatures as rudimentary as bacteria have been found to incorporate the natural mineral magnetite into their cells, allowing them to sense electromagnetic fields and follow their contours.

While subject to fluctuations due to solar activity and shifts in the earth’s inner core, the natural electromagnetic environment main-
tains a relative stability, allowing fish, whales, and birds to use it for an-
nual migrations over untold thousands of years. **With the rise of human**
technology, however, a wide range of new frequencies of electromagnetic radiations have been introduced to the planet’s surface, some of them in much higher strengths than any natural sources from either the sun or the inner core of the earth.

In addition, many of the resulting new electromagnetic fields (EMFs) have frequencies that are close to those caused by natural electromagnetic forces, but are different enough to have novel effects on biological systems. Our world is now swamped with man-made EMFs, and the earth’s life forms, as well as the air, water and soil, may be suffering both positive and negative effects. We are only beginning to understand what our high-tech electromagnetic pollution may be doing to alter life itself.

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**Q & A with Dr. Wentz:**

**Energy Beings**

**Q |** What would make a western microbiologist/immunologist like yourself move toward Eastern science?

**A |** My early work in biomedicine was largely in different aspects of cell biology. The human cell is an incredible machine, and even after nearly two centuries of investigation, it is still hiding many secrets from us. I became convinced that some of the secrets would be discovered only if we combine a wide variety of viewpoints from other traditions—such as Eastern medicine.

First of all, in recent decades we have become aware of the breakdown in the explanatory power of reductionism. Modern science made huge advances by breaking things down into their constituent parts in order to understand how they worked. But there is a limit to this approach.
After studying cells for decades, I came to the conclusion that they are not just tiny machines made of individual parts. If you take all the parts out one by one, then try to reassemble them, you aren’t going to get another living cell. There is something else that makes a cell alive. Some researchers call this something else “emergent properties,” that occur in cells when the correct collection of chemicals is achieved, but it’s more than that. Perhaps it’s some aspect of Qi (pronounced “chee”) that is the missing factor in cells that are alive compared to the re-assembly of organelles and molecules. Chinese practitioners propose that Qi is the energy of life that binds all molecules together, in both living and nonliving things. Qi puts and keeps things together so they can be and function as what they are. When Qi dissipates, death happens, and when the rhythm of its flow becomes unbalanced, illness occurs.

I am still just beginning to learn the basics of Eastern medicine, but the concept of Qi is very attractive to me because it epitomizes how Eastern medicine is focused on energy. Western medicine acts upon the substance of the body, the actual cells you can see under the microscope, and the chemicals in the cells. Eastern medicine works more on the energy that animates those cells. I believe that energy medicine is the medicine of the future.

Q | Can we keep the science of energy separate from the mystical?

A | I believe so. Energies come from the earth. And we creatures who were created by God from the elements of the earth share in those energies.

Q | What the ancients may have known to be true experientially without scientific explanation may have been understood and discussed in mystical terms. This doesn’t negate energy’s place in science, right?

A | Absolutely. You see, nothing exists in the body that is not made up of cells or products made from those cells. Every cell is composed of the same elements. This is why I often put up a periodic table in my lectures and talk about carbon, hydrogen oxygen, calcium, magnesium, selenium... all the elements of which the cell is composed. There is nothing else in the body except these elements that are on the periodic table. And all those elements come from the earth.
A | I take a look at all these elements and describe them in terms in which their composition is in their nucleus; they have a proton, neutron, and outside of that they have a circulating electron(s), and these are units of energy. Energy.

Our basic composition is energy—we are energy beings. My colleague, Dr. Miguel Lanzagorta, uses the term, “the energy body.” We are units of energy. Furthermore, everything we see, feel, touch, is condensed energy. Everything is made up of atoms, which are units of energy. When you understand it in those terms, how can anybody deny the importance of energy? Especially when you have channels of energy in the meridians of the body, going from cell to cell, the ultimate basis is electrical.

The important thing to realize is that the body has an energy system so delicate it can be easily disrupted by other energies. With that understanding we can talk further about these other energies (EMFs) that are harmful to living organisms.

**Nightstand**

**QUiZ**

**My Bedroom? It’s Electric!**
Answer the following questions and add them up for your EMF inventory score.

1. How many electronic devices are plugged in within four feet of your headboard (e.g. alarm clocks, radios, MP3 docking stations, phones, mobile phone chargers, lamps, etc.)? _______
2. How many electrical outlets are within four feet of your headboard? _______

Your EMF inventory score: _______

While taking inventory of your master bedroom, what did you find located closest to your brain where you will be sleeping? If your nightstand and dresser is crowded with electrical gadgets, you may need to rearrange some things. Decide what is absolutely necessary and move the other electrical gadgets at least 4 to 6 feet away from your head.
This is a good example of relying on “old knowledge” when science has such a long way to catch up. Technological advances are taking place at such unprecedented speeds, we simply don’t have time to wait for scientific studies to be approved, funded, implemented, and reported. It can take years, even decades. We must re-train our senses and intuition to be aware of surrounding dangers that may have subtly been added to our home. Consider what was in our original blueprint for health—for the expanse of human history. Life has been lived close to the earth, not surrounded by man-made structures and technology. By being mindful, we can make choices to reduce our exposure to invisible EMFs.

RESOURCES
Donna Eden, Energy Medicine
David Abram, The Spell of the Sensuous
Michael Roizen, M.D. & Mhemet Oz, M.D., You: Staying Young

Try This

- If your bedroom allows, place the headboard of your bed to the north. It doesn’t have to be perfectly aligned to be beneficial.
- Make sure your bed is not on a wall with a fuse box on either side of the wall.
- Rid your room of unnecessary electronic devices. Charge your mobile phone and iPod elsewhere. Get rid of the television and stereo.
- Don’t sleep near an air-conditioner, fridge, or electric water heater.
- Sleep at least 4 feet away from metal heaters or electrical heaters.
- Avoid sleeping with electric blankets. If using them, heat up and then turn off.
- Consider trading in your metal bed frame.
- Use a battery-operated clock or old-fashioned wind-up clock.
Making Love, Making Babies

Don't worry, we haven't forgotten the second most important activity that takes place in the master bedroom: sex. Unfortunately, few couples score better in this department than they do with sleep. In a recent survey of more than 12,000 men and women in 27 countries, half of adults reported they were not fully satisfied with their sex life, and one third said they were having less sex than they should.\(^8\)

While there are many reasons why we may not be having enough sex, some of the most common can be addressed by making changes already mentioned in this chapter.

**Libido Boosters**

1. **Get some sleep:** Consumer Reports\(^9\) asked adults in February 2009 for the most common reasons they avoided sex. The top of the list? Feeling too tired. It confirms what scientists already know: Adopting better sleeping habits can have a positive impact on our libido.

2. **Eliminate distractions:** Watching television or surfing the net in bed doesn't just affect the quality of our sleep. Couples also report it creates a serious diversion when it comes to sex. Why not get rid of the TV and create your own entertainment instead?

3. **De-clutter and de-stress:** A getaway at a 5-star hotel makes many of us feel more amorous. Why? For most, it's what is not in the hotel room that puts us in the mood. Gone are the piles of laundry, stacks of bills, and stressful conversations that so often await us in our master bedroom. Fortunately, we don't need a hotel's designer soaps or bland paintings to make our bedroom a sexual escape. Simply make it a place of refuge, where nagging tasks and stressful arguments are not allowed.

4. **Work those muscles:** Physical exertion, whether walking two miles or skiing a tough run, can give a big boost to our sexual satisfaction, and it's not because of slimmer thighs or killer abs. That feeling of exhilaration we get after a tough workout is actually a release of endorphins in the brain, the same chemicals that have been linked to the release of hormones that increase the sex drive.

Having sex has been known to bring about the life-altering condition we call children. Or, as I like to call it, “What were we thinking?” There is something both infinitely frightening and awe-inspiring that comes with the realization that you are totally responsible for the life of a new human being. My own knowledge about some of the health risks faced by this next generation of children
discouraged me at first from wanting to start a family with my wife. I finally realized, though, that this knowledge that was deterring me from having a child could be put to much better use—by creating the healthiest life possible for our future family. Fortunately, we had time to prepare both our bodies and home for the pregnancy. It’s a process that more and more couples are discovering as they struggle to conceive.

**Infertility Crisis**

If you’ve been unable to conceive a child, you’re not alone. At least one in every ten American couples cannot conceive a child. As more couples delay the start of their own family to pursue professions, the odds of having a baby do not get any better. What once was a sure-fire process of nature, has become a growing medical concern.

According to the National Center for Health Statistics, fertility problems have increased nearly 50 percent during the past couple of decades.

Studies indicate that sperm quality and quantity have decreased significantly since the 1940’s with an average decrease in sperm density of approximately 40 percent along with increased sperm abnormalities, defective sperm cells, and lowered testosterone levels. One in three women in their early 40’s have difficulty conceiving and carrying full term and now even couples in their 20’s are more likely than ever to have trouble getting pregnant.

Contributors to infertility include:

- Sexually transmitted diseases
- Obesity and diabetes
- Stress and anxiety
- Endocrine (hormone) disruptors - Environmental contaminants such as pesticides, plastics, and heavy metals
Add these factors to the complexity of conception itself and it's no wonder infertility has become a common problem, affecting an estimated 7 million American couples. If you've been trying to conceive for more than a year, the prevalence of environmental toxins may be interfering with efforts to have a child.

A Little Greek Wisdom

Early civilizations knew about the powerful effects that the herbal chemicals we now call endocrine or hormone disruptors can have on the human reproduction system. The Greek physician Hippocrates described the beautiful and common weed now known as Queen Anne’s lace as having powers to prevent pregnancy and precipitate abortions. Studies have shown that its seeds contain chemicals that block the hormone progesterone, which is necessary for establishing and maintaining pregnancy.

The pomegranate plant, especially its seeds, also played a central role in both Greek myth and their birth-control efforts. According to the myth, Persephone, the daughter of the fertility goddess Demeter, was told to eat nothing during a visit to the underworld Hades. When she disobeyed and ate a pomegranate, the gods punished her by sentencing the fertility goddess to spend a part of the year in the underworld. For this reason Earth experiences the barren season of winter until Persephone returns each Spring. Interestingly, the Greeks also used pomegranate as a contraceptive.

Over fifty families of synthetic chemicals, many of them ubiquitous in the environment, disrupt the endocrine (hormone) system. The body can break down and excrete the hormone disruptors from the plants it’s been exposed to (many are eliminated within a day), but unlike pomegranate, synthetic chemicals resist breakdown and accumulate in the body over time. Keep in mind that a normal part of the metabolism of hormones is its breakdown and excretion after the hormone has served its purpose. Foreign chemicals in the products we use every day may be interfering with this process and causing a buildup to toxic levels.
Sources of Mercury Exposure You Can Avoid

Many studies over the past decade have documented the detrimental impact on the neurological, immune, hormonal, and reproductive systems due to the high levels of accumulated mercury from environmental exposure.\textsuperscript{11}

The most common sources of mercury toxicity for mothers are found in areas people rarely give notice until a governing protective agency can no longer negate its devastating results. Gynecologists now counsel couples who are planning to have a family not to consume fish during the woman’s pregnancy. This caution concurs with the U.S. FDA’s advice to limit consumption of certain seafoods to no more than once a month. Shark, Mediterranean tuna, swordfish, mackerel and tilefish have all been shown to have much higher levels of methylmercury than other commonly eaten fish. This warning takes on more importance when you realize that the fetus is more susceptible than the mother to the adverse effects of methylmercury. The FDA extends this advice to pregnant and nursing women and women who are planning to have children, especially since dietary practices immediately before pregnancy have a direct bearing on fetal exposure during the first trimester.

There is a great irony here: while the government advises women of child-bearing age to limit their consumption of fish that contain mercury, amalgam fillings can expose these same women to significantly greater amounts of mercury. Such exposure is not once a month; it occurs all day, every day. The level of mercury in the fetus is directly proportional to the number of amalgam surfaces in the mother’s mouth: the more fillings a mother has, the greater will be the exposure to the fetus.\textsuperscript{12} Be sure to read the special Cell Science Article that follows. There you will find a discussion about safe removal and replacement. According to the Toxic Element Research Foundation (TERF), the cumulative effect of mercury amalgam poisoning makes it one of the most serious health hazards facing Americans today—particularly our children and babies yet to be born.
Get Smart Before You Start
The most important time to “clean house” or detox is in the months prior to conceiving a child. If you are planning to start a family, now is the time to be aware of environmental toxins so that when conception does occur, that tiny new life will be welcomed into a cradle of health.

The bedroom is not the only room of the house where making babies should be a main concern. If you plan to conceive a child or have hope for future generations, you may be surprised at what we’ll find in the next room.

Breathing
The first time I watched my infant son, Andrew, sleeping, I was struck by his breathing. Round and lush, the act of inhaling an exhaling engaged his entire body. Most of us have lost this simple, natural gift.

How often do we stop to consider how effectively we are breathing? When we are racing against the clock, arguing with a spouse, or absorbing alarming stories from the evening news, we literally hold our breath and forget to let go.

Shallow chest breathing results in a whole host of health problems including: autoimmune disease, cancer, and heart disease, lack of energy, low resistance to disease, high anxiety, the blues, and the blahs.

Learning to breathe deeply while using more of our body such as our belly and our back can help us feel and function better, especially when we’re asleep. Here’s why: In the lungs, oxygen is absorbed into the bloodstream and carbon dioxide is removed from the blood and then exhaled. “The real gas exchange happens in the lungs,” says Laurence A. Smolley, a pulmonologist and coauthor of Breathe Right Now (Norton, 1998). “If you don’t’ take a deep-enough breath, you don’t get the benefit of the gas exchange. You’re just letting air go up and down in your conducting airways.”
Breathing correctly can help us re-energize, release stress, strengthen muscles from the inside out, improve libido, and slip into restful sleep without drugs or dependence on music.

These breathing exercises will help you not only to become more calm and peaceful, but will help you breath naturally from the diaphragm.

1. Find a comfortable position: When first learning this technique, go ahead and place your hands over your stomach and feel the rise and fall of your abdomen with each breath.

2. A mental suggestion can help—speak to your breathing: Feel the air come into your nose (or mouth); down into your lungs, and feel your stomach rise; and then descend as you exhale the air, feeling it leave your lungs, throat and nasal cavity.” Repeat this with each breath.

3. Each ventilation is comprised of four phases:
   1. Inspiration, or taking the air into your lungs through the nose or mouth
   2. A very slight pause before exhaling
   3. Exhalation, or releasing the air from your lungs through the passage it entered
   4. Another very slight pause after exhalation before the next inhalation

4. Practice these phases by exaggerating them: Remember not to hold your breath at any time. As well, notice the regions of the lungs filling to capacity. These are the upper, middle, and lower lobes. Make a sound to exhale.

RESOURCES
John Harvey, Total Relaxation
“Breathe Your Way to Health” by Authenticity and Associates
http://www.authenticityassociates.com/store.html
Andrew Weil, M.D. and Martin L. Rossman, M.D., “Self-Healing with Guided Imagery: How to Use the Power of you Mind to Heal Your Body” CD
Jeanne Achterberg, Rituals of Healing
Martin L. Rossman, M.D. Guided Imagery for Self Healing

Try This

If you breathe deeply enough to engage the diaphragm, your chest should expand, and your abdomen should also expand. Put your hand on your stomach: if it moves up and out, you're doing it right.
There you have it—breathing can be practiced anywhere and in any circumstances including while driving in heavy traffic, waiting in line at the post office, giving a public speech, or even in court while standing in front of the judge. There are no limits to this relaxation technique.

Daily stretching/breathing techniques with Yoga or Tai Chi will improve for circulation and relaxation before sleep. For your morning or evening routine, consider a mini-trampoline (lymphaciser) for gentle jarring of the lymph system.

**Be Kind, Unwind**

Mark any of the activities below that you typically do within an hour of trying to fall asleep. Once complete, tally up your points. (Note that some activities will subtract from your overall score on this quiz.)

- Surf the Internet (5 points) ______
- Catch up on work (5 points) ______
- Play video games (5 points) ______
- Watch TV (4 points) ______
- Eat a meal or snack (4 points) ______
- Have a stressful conversation or argument (4 points) ______
- Have a nightcap (3 points) ______
- Tidy up (1 point) ______
- Plan for the next day (1 point) ______
- Listen to soothing music (-5 points) ______
- Write in journal (-5 points) ______
- Take a shower or bath (-5 points) ______
- Complete breathing/meditating exercises (-5 points) ______
- Read a book or magazine (-4 points) ______
- Perform stretching or yoga exercises (-4 points) ______
- Have sex (-3 points) ______

**Your Unwinding score:** __________
**Master Bedroom Health Assessment**

Add up all four of your quiz and inventory scores from Section 1 for your personal master bedroom health assessment. Read below to see what you’re doing right, and where you can improve it.

**0-20 points—You’re a master of the master bedroom.**

Congratulations! You have a healthy master bedroom and practice good sleep habits. Your body will thank you for it. As an A+ student, you’re ready for advanced studies. So, consider adding a HEPA filter to your bedroom if you don’t have one already, reading a book on Feng Shui to make your bedroom feel even better, or eliminating the electronic devices plugged in around your bed. Most of all, keep up the good work!

**21-40 points—Exceptional sleep is within your reach.**

You value your sleep and it shows. But there definitely is room for improvement. Go back and review your quiz answers. Note those that contributed most to your overall score. Remember, simple changes like moving the TV out of the bedroom, eating meals at least two hours before bed, and setting a consistent bedtime will go a long way to improving your master bedroom score—and your health.

**41-60 points—Time to wake up about your bad bedroom habits.**

Wait, don’t nod off just yet! Something is seriously askew in your master bedroom (and it shows in those circles under your eyes). Glance through this section again and write down five steps you can take immediately to improve your health in the bedroom. Once they’ve become part of your routine, come back and choose five more. Make slow and steady changes, and before you know it you’ll be a star of the boudoir.

**61 points or more—No offense but your bedroom routine is a nightmare.**

Yikes, you need some serious R&R. It’s time for some reflection on why sleep is low on your priority list. Fortunately, it won’t take expensive renovations to get your bedroom up to par, but it will take a serious commitment to your health. Start now. Write down what you think your biggest issues are; get to the very root of why you’re not well rested. If it’s high stress or a medical problem keeping you awake, don’t hesitate to see a doctor. If it’s daily commotion—like work, TV, or the neighbor’s barking dog—that’s seeping into your master bedroom, get on the defensive. Become your own advocate before you start to see serious problems with your health.
Bleary-eyed we stumble into the bathroom unaware of our early morning surroundings. Does your bathroom qualify for the skull and crossbones symbol to be displayed on the door? Take a tour of the master bath with us and find what should trigger your greatest concerns, what to avoid, and safe products you can use—ones that will support your beauty and youth, rather than prematurely age your skin.
We’ve just finished our tour of Dave’s newly renovated master bedroom, and following a fascinating discussion on possible causes of infertility in the master bedroom, Dr. Wentz has made his way into the master bath. With its inviting natural tones, thick towels and sleek, contemporary lines, I entertain the thought of excusing myself from the rest of the tour and indulging in a home spa treatment. I wonder, how could there be any possible danger in there?

_Dave_: Dad, maybe you shouldn’t go in there.

_Dr. Wentz_: I want to see your new tile. . .and I might have business to attend. _[He turns and smiles as he opens the cabinet above the sink.]_ May I? You know a bathroom has as big an impact on our health as the kitchen.

_Donna_: _[peering around the door from a distance]_ As much impact as the kitchen?

_Dave_: When we think about changing habits to improve our health, we usually think about changes to what we’re eating. But with the bathroom being the smallest, most poorly ventilated room, its one of the most dangerous rooms of the house when it comes to toxins—and most dangerous for me if I don’t get my dad out of there before he starts tossing my wife’s hair products!

_Dr. Wentz_: _[calling out from behind a cabinet door]_ Feng Shui says to keep the bathroom door closed and I think it might be a good idea for many reasons other than energy flow. The master bath is one of the last places you’d want to subject yourself to.

_Dave_: For most adults, it’s the room where a huge number of hours are spent—both getting ready in the morning and preparing for bed in the evening. The great news is that it is also one of the easiest fixes.

_Donna_: What is Dr. Wentz looking for, exactly?
Dave: He’s sniffing things and reading labels.

Dr. Wentz: [Holding up a bottle of hair spray for closer inspection] I’m pretty impressed, Dave. I’ve only found seven things for you to toss so far.

Donna: Uh-oh. Are the dates expired?

Dave: No, it’s not that. Dad hates to see people underestimate the chemicals in their personal-care products.

Donna: We’re talking about miniscule amounts of chemicals, right? How dangerous can it be if we only use it on our skin?

Dave: Ooh boy. You just asked a three-hour question.

Dr. Wentz: [leaning with his back to the counter with a serious expression on his face] The skin is utterly remarkable. We know this, but I’d venture to say that few people give it much thought. Have you? No manmade product comes close in comparison. [he rolls up a sleeve] Our skin is waterproof, stretchable, washable, and permanent-press. It invisibly repairs small cuts, rips and burns. Most people aren’t mindful about how absorbent the skin is. Far from being an impregnable barrier, its porous membrane (merely one twentieth of an inch thick), allows fluids or gases to easily pass through.

Taking A Closer Look

When considering the dangers that might lurk in the bathroom, the first that come to mind are tile cleansers or other chemicals hanging in the air, which compromise our breathing. But that’s just the tip of a Titanic-sized iceberg. Because our skin plays such a vital role in circulation, cleansing and absorption, we need to take a closer look. Why are we seeing more drugs and therapies being made available in skin patches for such ailments as motion sickness and heart disease? The skin, that fine mesh holding us together, not only releases toxins from the body, it also-soaks them up like a sponge. Protecting our skin is as vital to our health as avoiding toxic fumes or pesticides on our foods. As Dr. Wentz often says: if you aren’t willing to eat a product, you shouldn’t put it on your skin.
Industrial Grade

We know skin exposure to toxic chemicals is a significant problem in America’s industrial workplace. In fact, the number of cases of skin disease in the U.S. exceeds respiratory illnesses. The skin, in many cases, is a more significant route of exposure than the lungs.¹

When our company’s research team conducted in-depth studies, we found that the exposure of the skin to toxic chemicals is actually a much larger problem in the home than on the job.² The permeability of the skin means that many of the beauty products we use every morning rapidly pass through the skin and into the bloodstream, where they circulate throughout the body. This isn’t a problem if what we put on our skin is nutritious and healthy for the body. Like Dr. Wentz, maybe we should take a look in our bathroom cabinets just to be safe.

The Ugly Reality Of Beauty Products

We desire beauty. We might even consider ourselves addicts of beauty. Who doesn’t love to dream of a better, less wrinkled future woven by sexy promises and airbrushed photos? Beauty equals success, and we each hold out for the miracle of fading lines, plump and luscious lips, and teeth that flash a brilliant smile. Oh, and hair that never thins or grays. The truth is, both men and women enjoy trying new products. We’re excited about new scientific breakthroughs. We’ll easily confess how gullible we are for potions that offer new fragrances, textures and colors. It keeps life interesting and fun. And we’re game for anything to slow the clock.

“We take [advertisers’] promises on faith,” Sloan Barnette says. “And we primp. We moisturize. We disguise. We deodorize. We colorize—day after day.” We figure we’re fine because we’re not using (or smelling) even a portion of what we see at salons and on the shelves of department stores. If there are dangerous chemicals, the amounts must be inconsequential or they wouldn’t be on the market.
When was the last time you counted? If you are like most Americans (women and men), you use an average of nine products, containing about 126 individual ingredients, every day. One in every four women use at least fifteen different beauty products a day. Have you recently packed for an overnight flight that involves a carry-on? It’s a nightmare. If your bathroom cabinet looks anything like my wife, Renee’s, and mine, you’ve got a collection of chemicals that will make your hair turn grey just by trying to read down the list of ingredients on your makeup removers, body washes, shaving foams, shampoos, conditioners, deodorants, moisturizers, lip sticks, foundations, powders, liquid liners, pencils, hair gels, highlights, mousse, sprays, toothpaste, rinses, whiteners, perfumes, nail polishes, sunscreen, spray-on tan, bug spray—even toilet paper, tampons, and band-aids have chemicals added. Have I forgotten anything?

Nine or more products on your skin every day? That’s a lot of fragrances, preservatives, and other chemicals coating your body’s largest organ. Let’s take a simple, non-threatening look at the most likely substances to be found infiltrating our immune systems and bloodstreams.

Preservatives
Manufacturers of cosmetics know that one of the major turnoffs for consumers is opening a jar and finding that it has become visibly contaminated with microorganisms. At the same time, they want to be able to ship their products long distances and store them in warehouses for months to make distribution efficient. That’s why nearly all cosmetics contain preservative chemicals. Preservatives, by their very nature, are designed to kill. Specifically, they work by killing cells and preventing their spread with the intention of preventing the growth of bacteria and fungi—mainly, Candida albicans, Pseudomonas aeruginosa, Escherichia coli, Aspergillus niger, and Staphylococcus aureus—which can potentially cause serious infections on the skin and in the body.
The problem is that human skin is also made of living cells, so preservatives, even if used in small quantities, present a risk to the integrity of the skin. When absorbed into the bloodstream, preservatives become a hazard to the rest of the body as well. For this reason, they have restrictions—usually limiting use to a small percentage of the total formula.

We’re exposed to an astonishing amount of chemicals every day, and we rarely think about the effects they might have on our health. When we do stop to reflect on a particular product’s ingredient panel, most of us shrug and say, “It must be a safe level. It wouldn’t be allowed on the shelf if it wasn’t.” Governments and consumer groups do set safe levels for personal-care products, but stop to think about what that really means: we’ve accepted a scale for ingredients we know are bad but hope, for the sake of convenience, are worth a “little” damage. If we lived in a vacuum and that one product with that miniscule amount of death formulated in it (in order to give the product properties customers want) was the only one we used, our bodies would probably be able to counteract it. But we don’t live in a vacuum, and we certainly use many products each day to look and feel our best.

Companies know what consumers want and they deliver. That exotic fragrance? Those invigorating bubbles? The things you love most about your products are often created by putting particular ingredients at maximum safety levels. What does this mean for you when you wash your face, tone, exfoliate, masque, moisturize, and apply eye cream? Men: what about your shaving cream, cologne, sunscreen, etc.? If you are putting the “maximum safe dose” on your face 6 times, you now have 6 times the safe dose of those chemicals on your face. It’s ironic that toxic chemicals damage your skin cells and actually age your skin every time you apply those “anti-aging” products.

**Maximum Safe Levels**

“Maximum Safe Levels.” This is the government’s standard way of saying that one of their scientists have informed them that, say, 6 parts per million of a particular ingredient is safe for humans (based on animal studies). At 7 parts per million, however, this same ingredient may show signs of causing cancer.

For example, the government regulates that humans can safely tolerate 5 parts per million of a paraben preservative in a skin-care product. This is good news to the face cream manufacturer (we’ll call them Company A) that wants to create a product that has the longest shelf life possible. Company A wants the maximum amount of parabens in their product to kill the bugs that tend to grow in the moist, nutrient-rich,
environment they’ve created. Company A puts 5 parts per million of para-
ben in their product and everyone is happy.

Of course, Company B has the same plan for their eye cream that effectively and naturally prevents wrinkles. Company C needs to be competitive with their masque product. To keep their products from going bad before they can sell it, they too add 5 parts per million.

All of these “natural” products are safe and all are compliant. We can feel good that we don’t have bacteria growing in our. Unfortunately, your face is having 15 parts per million, or 200% of the maximum safe level, being applied each day as you do your daily regimen (and we haven’t gotten to the foundation, lipstick, eyeliner, eye shadow, brow pencil, blush, spritz, or hairspray). Remember, 7 parts per million was shown to be problematic in research studies. In a controlled lab environment, the government set out to protect you. And your favorite manufacturer gave you a reasonably safe product. In reality, though, during the earliest steps of your daily regimen, you’ve already tripled the safe level and doubled the level shown to be dangerous, putting yourself at great risk. You will inevitably damage the very cells that you are trying to keep vibrant and healthy looking. These toxins will sit on our face and skin all day long, perhaps even being reapplied throughout the day so we can look fresh.

Personal-care industry experts claim that studies showing a risk of cancer are unrealistic—after all, the studies used 10 times the “normal dose” or Maximum Safe Level of parabens allowed in a product. Have you ever wondered who these experts are and how these levels are determined? How did they establish this number? Did someone decide that 1/10 of the poison that kills you is “safe”? Are they assuming you have a perfectly healthy immune system, liver, kidneys, lymph drainage, air quality, drinking water, etc.? Perhaps it is more realistic to assume that your body is battling a hundred other cellular attacks at the same time.
Cellular Truth about Preservatives

For cosmetic manufacturers, finding new preservatives is complicated; to be considered effective, a preservative has to fulfill several criteria. A preservative must be:

- effective across a wide range of microbes
- long-lasting, in that it continues to keep the product free from contaminants for the life of the product
- rapid-acting, at the first sign of contamination
- non-sensitizing (it won’t cause an allergic response)
- nontoxic and nonirritating
- compatible with other ingredients in the mix
- stable (it won’t break down during storage and stays active across a wide pH range)
- inactive, except as an antimicrobial (it won’t interact with other ingredients)
- soluble, so that it mixes well with whatever base (water or oil) it’s in
- acceptable in color and odor
- cost-effective

No single preservative—synthetic or natural—fulfills all these criteria, which is why manufacturers often use several different preservatives in a single product. Furthermore, all of the most commonly used preservatives can cause dermatitis and other skin reactions—some more so than others.

The most commonly used cosmetic preservatives belong to a family of chemicals known as alkyl hydroxyl benzoates, or parabens. Parabens
are universally recognized as skin sensitizers. But late in 1998, another problem with parabens surfaced when researchers at Brunel University in the UK published a study that identified these chemicals as estrogen mimics as well, each with a different estrogenic potency.

Skin irritation and endocrine disruption are just two of the health problems of preservatives in cosmetics. Unless they are able to employ natural ingredients in a self-preserving formula, cosmetics manufacturers must continue to present their customers with a lose-lose situation: Either accept that cosmetics are going to suffer from microbial contamination or that they are going to contain toxic substances.

Also see Epstein: *Unreasonable Risk* (2005)

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**Words That Wave A Big Red Flag**

Remember, Beau-line, the villainous make-believe company in *Cat Woman* whose products made one’s skin (even Sharon Stone’s!) scar and shrivel up? No product on the market today comes close, but ultimately, you must debate whether your beauty regimen is effective in making you look younger due to giving the skin what it needs, or if it is merely a short-term solution. Few people realize that the “plumping effect” is often a result of inducing a short-term inflammatory response that will end up making you look much older later on due to the damaging of skin structure over time. Many foundations will smooth now, but also will prevent skin from breathing and pollute pores. I can guarantee that you will need more than foundation later in life. We need to get rid of toxins whenever we possibly can.

More serious than just a makeup problem, studies have shown that some chemicals found in the master bath are particularly problematic for men. In her new book, *Not Just a Pretty Face: The Ugly Side of the Beauty Industry*, Stacy Malkan does a good job of exposing the toxic chemicals that lurk, often unlabeled, in the personal care products that American women, men and children use every day.

Some companies have different formulations of the same products. Some, with harmful toxins removed, go to Europe, and others, with toxins included, go to the U.S. Europe has
much better health protection laws, and they take a serious precautionary approach. The European Union has banned 1,100 chemicals from cosmetics that are thought to cause cancer or reproductive harm, and so they take a precautionary approach by saying, “We know these chemicals are hazardous.” Nobody argues about that. Instead of arguing about at what level are they safe in products, we need to take them out of the products and figure out how to make products without them. The United States, on the other hand, says, “We need to be able to prove that an ingredient in this product causes harm before we’re going to do anything about it.

We’ve not included an exhaustive list here, but my goal in the following pages is to discuss just a few of the most common toxins to avoid, hoping that you will then choose a more natural, healthy option available on the market.
Cellular Truths: Skin

What types of chemicals are being absorbed through the skin and into our bodies when we use cosmetics? Among the 10,500 different chemicals used in personal-care products are nitrosamines, lead and other heavy metals, parabens, phthalates, hydroquinone and 1,4-dioxane. The last is a probable carcinogen found in almost a quarter of all cosmetic products, not as an ingredient, but as a contaminant.

A recent study by a public service environmental information group analyzed ingredients in more than 25,000 cosmetics and personal-care products. A summary of the resulting database, called Skin Deep, reported in 2005 that

- 1/3 of personal products contain at least one ingredient linked to cancer
- 45% of products contain an ingredient that may be harmful to the reproductive system
- 60% of products contain chemicals that can act like estrogen or disrupt hormones in the body
- 56% of products contain “penetration enhancer” chemicals, which help other chemicals penetrate faster and deeper into the body
- 87% of ingredients in personal-care products have not been assessed for safety by the Cosmetic Ingredient Review, the industry’s self-policing safety panel

Toxic ingredients in cosmetic and personal-care products are not like air pollution; these products are much more difficult for individuals to address. Every one of us can be informed about toxic chemicals being applied to our bodies and refuse to use them.
**Fragrances**

**Perfumes, hair sprays, and makeup can damage your skin, causing you to look older.**

In an instant, fragrance can hijack emotions and transform our moods. Smell is, after all, our most primitive sense. We understand little about how our genes kick in to help us recognize and remember distinct odors, but we feel it, we desire it, we respond to it. Each fragrance has the power to evoke vivid recollections of your grandmother, a lover, or even the hospital where your baby was born. Our memories are bookmarked with their own distinctive and lingering scents.

But have we confused chemically created fragrances with the ancient art of masterfully mixing eau de *parfum*? Is that a lovely fragrance you’re wearing or might it be an imposter? Is your sweet smelling mist . . .

A: an infusion of meticulously collected rose petals, fruits, or barks collected by hand in Morocco’s Dades Valley or southern France?

B: a concoction of mixed chemicals swilled by Far Side characters in white lab coats?

If your answer is A, you most likely spent an equivalent to a car payment for a fraction of an ounce. Why so costly? The refined art of mixing perfume is much like the art of fine wine. A perfume creator—a “nose”—needs many years of training to sharpen an already gifted sense of smell before earning respect in the industry. With only a few hundred noses working in the industry throughout the world, a nose, like a fine wine connoisseur, must study and be able to identify hundreds of hand-mixed formulas.

If your answer is B, you are like most Americans. And regardless of whether you apply A or B just minutes before kissing your date hello, your favorite concoction must be preserved one way or another. [See Preservative on p. 57].
The word perfume comes from the Latin per fumus, or “through smoke,” referring to the burning of incense in religious ceremonies. Initially, French perfumes were meant to cover up odor and were a privilege of the wealthy. Napoleon Bonaparte (most likely a pretty stinky guy in all those layers of wool and ruffles) ordered two quarts of violet cologne each week. Now fragrances primarily mask chemical solutions.

Expensive perfumes, like the ones made in France, are specially combined scents made from natural sources, but this is not where the cosmetic industry gets their fragrances. When you sniff your designer shampoo, you are typically inhaling organic solvents, just like gasoline or diesel fuels. Of course, the designer cologne you purchased for your loved one is pleasant smelling too, but it is still a mix of synthetic compounds and, therefore, toxic to the body.

Natural fragrances (at least the enjoyable ones) are short-lived, travel short distances, and don’t persist. They’re not stable. Ninety-nine percent of everything you smell in the way of a perfume is an organic solvent, a chemical built from aromatic chemicals, a chemical group that is added or deleted to the molecule to create a smell or to stabilize it. Virtually all fragrances from cleaning materials fall in this same category. They are also synthetics. The liver has to detox each one of these vaporous chemicals and get them out of the body.

**Scent-sibility**

Can you think of a single product you use on your body that doesn’t come with a fragrance? Is there a reason lipstick needs to smell good? Why do we need four or five different products in our hair, all having their own heavy aromas? Fragrance and perfume is not synonymous, and we’d be much healthier doing without a majority of the masked substances found in our master bath and subsequently on our bodies. Without clear-cut boundaries and terms, the lines blur. What we can be sure of is that for every natural, harm-free perfume or essential oil, there are thousands of imposters that don’t even come close.
The majority of perfumes are made by only a handful of international labs. Yes, even those touted by our favorite celebrities. Each brand contains dozens of synthetic chemicals derived from coal tar, petroleum distillates, and pine resin. Many, many chemicals are hiding in fragrances. Companies aren't required to list the components of fragrance. Products also are contaminated with carcinogens like 1,4 dioxane and neurotoxins like lead that aren't listed on the label. The fact that these manufacturers are protected by the trade secret law means they are protected against having to report their ingredients.

Highly valued in almost every culture throughout history, some of the most prized scents are concentrated in barks such as cinnamon; in fruits, including citrus; in leaves, particularly herbs like sage and mint; and in woods, including sandalwood and camphor. Our most enticing scents come from flowers such as the rose, gardenia and lily. Today's Western perfumes trace signature elements of their blends to Grasse, a town in southern France known for having attracted the best parfumiers since the 16th century.

**Scents We Love**

Highly valued in almost every culture throughout history, some of the most prized scents are concentrated in barks such as cinnamon; in fruits, including citrus; in leaves, particularly herbs like sage and mint; and in woods, including sandalwood and camphor. Our most enticing scents come from flowers such as the rose, gardenia and lily. Today's Western perfumes trace signature elements of their blends to Grasse, a town in southern France known for having attracted the best parfumiers since the 16th century.

**Perfume Deconstructed**

Perfume is described as having three “notes” that blend to make a harmonious “chord.”

**Top notes** Scents such as citrus and ginger are perceived immediately when the perfume is applied.

**Middle** When the top notes dissipate, the scent that emerges forms the perfume’s “heart.” Lavender and rose often dominate.

**Base** The base is usually not apparent until about 30 minutes after application, once the perfume’s alcohol base evaporates and the scent settles with the skin’s natural oils. Common base notes include various woods and musk.

**Easy solution:**

Count the number of fragrances in your beauty regimen and intentionally minimize them.
Some of the products common to Americans are strong enough to make a grown man cry. Think for a moment about the smell of permanent curling solutions or the thick chemical smells wafting out of nail salons at the mall. Dr. Wentz has a few things to say about that.

**Dr. Wentz:** Prudence, my significant other, likes to get her hair and nails done. When she’s going to a new salon, I insist on going with her. If I open the door and discover a strong smell of alcohols other than ethynols, such as acetone, zylene, or organic solvents, I won’t allow her to go in. I want her in a place that’s better ventilated, a salon that doesn’t use these solvents indiscriminately; one that doesn’t allow harmful chemicals to touch her skin, which are then absorbed right into her body.

People need to know the importance of smell and our basic reaction to smell. The value of the nose is not only to protect us from fumes that gain entry through the respiratory tract, but also those that can enter our pores. **Sufficient evidence shows that chemicals don’t need to be in an aqueous form; just being in contact with vapors exposes your whole body’s cells to those vapors.**

**Donna:** Are you saying you have trained your nose to decipher between odors that you’re smelling in a nail salon? What does that mean for a typical person without such a keen sense of smell?

**Dr. Wentz:** Let’s make it practical. When you smell something, ask yourself, “Is this natural or is it man-made?” If it’s man-made, you want to avoid it; you don’t want to inhale it and you certainly don’t want to put your skin’s integrity at risk. Practice avoidance. Get away from it.
Phthalates
Phthalates (also known as plasticizers) have transformed our consumer culture. Phthalates keep nail polish flexible, hair sprays from being too stiff, and “fix” (stabilize) perfume in products as well as make fragrances last longer. Each room of the house functions around these hormone-altering toxins, so prevalent is their use in our everyday products.

According to Hauser et al. (2006):
Phthalates are a class of multifunctional chemicals used in a variety of consumer and personal care products. High-molecular-weight phthalates (eg, di-2-ethylhexyl phthalate --DEHP-- and butylbenzyl phthalate --BBzP--) are primarily used as plasticizers in the manufacture of flexible vinyl, which is used in consumer products, flooring and wall coverings, food contact applications, and medical devices. Manufacturers use low-molecular-weight phthalates (eg, diethyl phthalate --DEP-- and dibutyl phthalate --DBP-) in personal care products (eg, perfumes, lotions, cosmetics), as solvents and plasticizers for cellulose acetate, and in making lacquers, varnishes, and coatings, including those used to provide timed release in some pharmaceuticals.

European countries are being aggressive in discontinuing the use of phthalates, but America is slow to follow suit. For twenty-five years the EPA has known that men, women, and children are all exposed to phthalates, and chemicals that are known hormone disruptors. For males this means interference with the production of testosterone, which results in lower sperm counts, birth defects like hypospadias, a condition that affects the male urethra, testicular atrophy and tumors.

Just about everyone has some level of phthalates in their bodies these days. Even more concerning is the fact that because these chemicals are fat soluble, they are found in breast tissue. The toxin then passes into breast milk and mothers give their babies concentrated doses of phthalates with every feeding.

Petrochemicals
Petrochemicals are the magic behind the suds in shampoos and the smoothing volumizers in conditioners. The two main classes of petrochemical raw materials are olefins (including ethylene and propylene) and aromatics (including benzene and xylene isomers), both of which are produced in very large quantities throughout the world. Many of the products we’re applying to
our faces and putting in our hair are byproducts of oil.

Ours is an economy that’s based on outdated technologies of petrochemicals—products made from the raw materials of petroleum or other hydrocarbons. Of course, it’s not been proven that all petrochemicals are carcinogenic (cancer-causing), but I find it shocking that so many beauty and skin care brands still use petrochemical ingredients when there is such controversy around their safety.

So you know what to avoid, here’s a list of petrochemicals, which are often used as ingredients in beauty and skin care products:

- Ethanol, also called ethyl alcohol, is often used to add scent or color to products.
- Isopropyl alcohol is colorless and often used in solvents. A common ingredient in nail polish remover.
- Propylene glycol is still widely used in moisturizers.
- Phenol has antiseptic qualities and is also used as an extreme exfoliant.
- Acetone is the key ingredient in most nail polish removers. It is easily absorbed through the skin.

**Sulfates**

All shampoos cause some level of irritation. In fact, shampoos rank among the products most often reported to the Food & Drug Administration for scalp irritation, stinging eyes, as well as tangled, split, and fuzzy hair.

But, health-conscious consumers today are concerned with more than the obvious side effects of synthetic detergents. The overwhelming use of sodium lauryl sulfate (SLS), an inexpensive substance that makes mixtures foam well, and its close cousin, sodium laureth sulfate (SLES), is cause for worry. In its final report on the safety of sodium lauryl sulfate, the *Journal of the American College of Toxicology* notes that this ingredient has a “degenerative effect on the cell membranes because of its protein denaturing properties.” What’s more, the journal adds, “high levels of skin penetration may occur at even low use concentration.”
Interestingly, sodium lauryl sulfate “is used around the world in clinical studies as a skin irritant,” notes the journal. The publication expressed additional concerns:

- Carcinogenic nitrosamines can form in the manufacturing of sodium lauryl sulfate (SLS).
- Studies have indicated that SLS enters and maintains residual levels in the heart, liver, lungs and brain from skin contact.
- Still other research has indicated sodium lauryl sulfate may be damaging to the immune system, especially within the skin. Skin layers may separate and inflame due to its protein denaturing properties.
- Although SLS is not carcinogenic in experimental studies, it has been shown that it causes severe epidermal changes in the area it is applied, indicating a need for tumor-enhancing assays.
- Additional studies have found that sodium lauryl sulfate is heavily deposited on the skin surface and in the hair follicles. Damage to the hair follicle could result.

Manufacturers are responding to consumer concern and we’re seeing more brands advertising, “no sulfates” in their products and toothpastes. With the possibility of the research findings above, doesn’t it seem worthwhile to take the time to do some comparative shopping?

**Parabens**

Paraben preservatives in beauty products can accumulate and alter sexual development.

Here’s another of those ironies I’ve been talking about: we worry and fuss about our kids eating healthy, and then we “gift” our daughters with toxic perfume or colognes, body lotions, and spritzers to wear all day. While dreaming of being all grown up, our young girls are absorbing toxins and breathing in chemical fumes that, according to the government, “aren’t dangerous enough to kill them,” but are proven to impact the hormone systems enough to fast-forward ten year olds into sexual maturity.

We are finally seeing a growing concern with the cumulative effect of parabens and phthalates in preservatives and it’s about time. What do you envision for
your pre-teen daughter or niece? Miley is not the only influence on our girls when it comes to growing up too fast. Industry regulators say invisible chemicals such as parabens are safe, but scientists examining the effects in lab animals and marine life claim these toxins are suspected hormone disruptors. How long before science can know for sure?

Take a look at your labels. These preservatives are easy to find. You’ll likely find parabens listed as:

- butylparaben,
- ethylparaben,
- methylparaben,
- propylparaben

While dreaming of being all grown up, our young girls are absorbing toxins and breathing in chemical fumes that, according to the government, “aren’t dangerous enough to kill them...”

We aren’t going to stop using beauty products that make us look nice and smell clean. I’ve met hard-core naturalists and honestly, some of them smell B-A-D. I actually like sharing a room with well-groomed people. The point is to heighten awareness about what is in our products, know how they are being absorbed into the blood stream and choose more carefully from the widening variety of options that are safer.
Artificial Colors & “Natural” ingredients

As we become more informed about what is in the products we’re using, manufacturers are being even more clever with how they present ingredients. “Natural” formulas are often created by adding natural-sounding ingredients such as honey or herbs or aloe, instead of actually making a more healthy formula by removing unnecessary artificial colors, fragrances, and preservatives. How many of us are making a mental note to question this new form of marketing?

A product labeled as “cruelty-free,” or “not tested on animals” makes us feel safer, more confident that this must be a trustworthy one. But you should know that the law does not require cosmetics to be tested for safety before being allowed to be sold. The FDA can only take action on a case in which harm has already been done, after the product is already on the market, and only after receiving enough complaints and after enough evidence has been collected to prove in court that the product is hazardous. Furthermore, the FDA cannot require follow-up monitoring or forced recalls.

With more natural-care products available than ever before that are more pure, competitively priced, and aesthetically pleasing, we can break out of old habits and allow our purchases to create demand for healthier manufacturing practices. Simpler is always better. The fewer ingredients you coat on, the safer you will be. Sounds easy, but where do we start?

I think it’s really important, especially for women in this culture, to recognize that the beauty industry is all about profit and bottom-line thinking. It’s not concerned about our health issues. It’s not concerned with telling the truth about its products. We, as consumers, have the responsibility at this point to do our own research. Maybe you can only replace one item at a time, but you’ll be making progress.
There are a lot of good (nontoxic) products on the market that avoid using the chemicals we just discussed. I suggest starting by switching out the ones that you use most frequently. Anticipate that you’ll have to experiment a little with different kinds of natural products until you find the one that works best for you. You might even want to try some fun, homespun remedies over a relaxed weekend. Our goal is not only to heighten your awareness about ingredients to avoid, we also want to provide new ideas for nourishing your skin.

**Solutions (to reduce damage):**

- Take inventory of the chemicals you are putting on your body each day.
- Ask yourself, “Is this product making me look younger by causing a short-term inflammatory response?”
- Get a plastic garbage bag and toss products with expired dates. Add to it, those products that have lists of ingredients so long that they cover the entire length of the container.
- Start replacing your daily products with safer, natural alternatives.
- Watch out for marketing hype. If it seems too good to be true—it is.
- Opt for paraben-free and fragrance-free products whenever possible.

**RESOURCES**
To learn more and take action, visit safecosmetics.org. To find out what toxins are in your personal-care products, go to www.cosmeticdatabase.org. And to purchase Malkan’s book, check out notjustaprettyface.org.
The Beautiful Science Of Skin

We’ve talked about what to avoid and toss in order to stop long-term damage being done as the result of short-term fixes. But that is just the start. Our skin thrives on good nutrition! Like every organ, the skin requires adequate nutrition and antioxidant protection. Some skin nutrients can only be supplied internally, while others need to be applied topically. Internal nourishment protects the skin’s cells, and external applications protect the skin from environmental toxins such as smoke, pollution, and sunlight.

Oxidation, the biological process that makes cars rust or an apple turn brown, also makes our skin wrinkle. When you feed your body’s canvas the essential vitamins, minerals, antioxidants, and cofactors it needs, you will visibly see and feel the difference. What are you doing to keep this beautiful organ healthy and vibrant both inside and out?

Nature’s beauty solutions

In an era of heightened eco-consciousness, botanicals and their role in “global beauty”—what women around the world are doing to keep their skin radiant—is all the rage. Trends show that consumers are growing bored with technical sounding formulas such as collagen-boosting peptides, skin-plumping hyaluronic acid, anti-aging retinol, and AHAs that are difficult to understand or even pronounce. Magazines are filled with new information on antioxidant-packed goji berries, which have been used in Chinese medicine for thousands of years, and acai berries, harvested in the Brazilian rainforest. These exotic ingredients are not only high-energy superfoods, but have also been showing up in body lotions and shower washes.

With broader wisdom and concern for the earth and health in general, consumers are demanding that the beauty industry consider more healthy alternatives, turning to nature’s cure for our beauty needs. We want natural, safe
beauty products. After all, using natural food to nourish the skin is old wisdom. As far back as Cleopatra’s milk-and-honey baths, women have been raiding the pantry for “edible” skin remedies. Accepting chemical-laden products is what’s really outlandish. That’s why prestigious companies are returning to the earth for answers found in pumpkins, yams, soy, blueberries, grapes, teas, and even mushrooms, for new beauty products.

With its anti-inflammatory properties and high polyphenol content, tea is starting to appear in a wide range of beauty products to combat wrinkle-inducing free radicals. A study at University Hospitals of Cleveland and Case Western Reserve University found that white tea extract protects elements of the skin’s immune system. Applying it to skin before sun exposure helped boost the immune function of skin cells and protected them from sun damage.

The rich polyphenol content of grapes that helps protect the cardiovascular system can also have anti-inflammatory and revitalizing effects on the skin, according to beauty companies that utilize different varieties and by-products (vine shoots and leaves, seeds, wine extracts and grape juice). Researchers are studying antioxidants such as those found in grape seed extract for their natural sun-protection properties. With its vitamin E and fatty-acid content, grape seed oil is being used in many forms of beauty products.

Prestigious companies are returning to the earth for answers found in pumpkins, yams, soy, blueberries, grapes, teas, and even mushrooms for new beauty products.
Nature provides perfect blends for keeping all cells in the skin’s layers properly nourished and hydrated. Watch for these amazing beauty ingredients found close to the earth:

**green tea** – defends against harsh environmental elements through oxidative defense

**whole-grape extracts** – helps calm oxidative stress caused by environmental influences

**aloe** - delivers concentrated moisture

**plankton** - guards against the drying effects of the sun

**clary sage** – soothes and moisturizes

**gotu kola & coneflower** – refine and brighten skin’s appearance, helping it look firmer by maintaining elasticity

**Irish moss** - softens skin

**balm mint** – provides calming and toning properties

**shea & mango butter** – smooth skin and protect it from moisture loss

**beeswax** - locks in moisture

**mulberry, bearberry leaf, and licorice root** - refines the skin and provides brightening compounds

**papaya** – dissolves dead skin cells as it softens and brightens

**rice bran beads** - provide gentle exfoliation

**soy protein** - delivers vital nutrients

Over the past couple of decades we’ve come to believe that man-made formulas are somehow superior to what nature provides. The media has done much to educate us and now we are able to make better-informed choices.

As I mentioned earlier, my father believes that you shouldn’t put anything on your skin that you wouldn’t be willing to drink or eat. Bad flavor aside, skin-care products should include ingredients that you don’t mind entering your body.
Solutions (to reduce damage):

- Set aside time to become familiar with Nature’s Solutions for beauty, it will be time well invested!
- Shop online or at Natural Food Stores for your skin care products.
- Consider making your own natural beauty recipe.
  [See Recipe box below.]
- Remember your bedroom is one of your easiest beauty secrets. During deep sleep, skin cells are stimulated to grow, then divide. This cycle corrects any harm that’s occurred during the day and boosts your skin’s radiance.

From the Kitchen: Recipes for Natural Beauty

To reduce morning puffiness:
Brew a cup of organic chamomile tea; let it cool, then pour into a spray bottle and spritz all over face. Extracted from the daisy plant, chamomile acts as an anti-inflammatory to quickly calm irritation and reduce puffiness.

Zit zapper:
Squeeze two lemons into a half cup of water, then splash over face and rinse. Lemon juice contains alpha hydroxy acid, which dissolves dead skin and fights bacteria, so the concoction helps banish blemishes.

Moisturizing body scrub:
Fill a glass jar with honey and a few scoops of brown sugar to keep in the shower. It cleans and softens skin and smells delicious.

Don’t forget your hands
Antioxidant protection is vital for the hands because they are so easily left unprotected from harsh cleansers and especially overlooked when protecting from the sun. The dull, flaky look that comes with aging is a result of skin cells being replenished more slowly. Like the skin, nails show signs of sun damage, the most obvious being ridges. Ridges are our nails’ version of wrinkles.

Easy solution:
Exfoliate your hands with a gentle, natural body or face scrub—like a rice-bran formula.
Hair Care

FACT: People who have inhaled hair spray mist for extended periods can develop enlarged lymph nodes, lung masses, and changes in blood cells.

Second only to the beauty of smooth, firm skin, is beautifully healthy hair. The quest to add volume, color, and shine means special care of our hair is now regarded as an affordable luxury, which is why professional-grade products and beautiful stylish bottles are filling the shelves. More than half of all American women dye their hair. And they are starting as early as elementary school. If you happen to be a non-dyer, you still need to be concerned about shampoos and conditioners, which are absorbed into the bloodstream right through the scalp. Remember, warm water from the shower opens up pores. And, then if you wrap a towel around your head in that brief interval between your shower and before blasting your scalp with even more hair products, you’re just ramping up the number of chemicals your body will be exposed to.

Common ingredients in hairspray include:

- aerosol propellants
- alcohol
- polyvinylpyrrolidone plastic (PVP)
- formaldehyde
- artificial fragrances

Styling mousse contains almost exactly the same ingredients as hairspray. The only real difference is that it comes in foam instead of a spray.
Hairspray exposure increases risk for birth defects in sons

Many cosmetics such as deodorants, fragrances, and nail and hair products contain chemicals called phthalates, such as diethyl phthalate (DEP) and dibutyl phthalate (DBP). Sons born to hairdressers, beauty therapists, research chemists, line operators, pharmaceutical operators or other jobs where the mother was likely to come in contact with phthalates had a two to three times greater risk for the birth defect known as hypospadias, wherein the urinary open is abnormally placed. If you want to spend a troubling few minutes, Google “hypospadias.” Chemicals in our daily living do impact our physical lives—and those of our children!

The study, by researchers with Imperial College in London, also found that mothers who took folic acid supplements in the first trimester of pregnancy cut their risk of a having a boy with hypospadias by 36 percent. The study recently was accepted for publication in the journal Environmental Health Perspectives.xi

Solutions (to reduce damage):

- When using hairsprays, turn on the bathroom fan, hold your breath, do a quick spray, and immediately exit.
- There’s no need to have unsafe products on your hair and scalp. Purchase at natural-food stores or online.
- Wash hair every other day to reduce chemicals applied and the need to dry.
- Minimize EMFs (See Master Bedroom section). Consider leaving that hair dryer in the bottom drawer on days when you can afford to look more casual. At least choose a hairstyle that allows you time for more air dry and less hair dryer minutes. After learning more about electromagnetic fields (EMFs), it seems wise to minimize that activity near your brain.
Is your hair flat or flyaway with crackly static? If you live in a dry climate like I do, your hair may be giving you static because of the nylon bristles on your brush or plastic combs. Try switching to a natural-bristle brush and a wooden comb, available at natural-food stores, salons and on the Internet.

Feeding Your Hair
Man-made products may boost volume, tame the frizzies, or add shine, but hair strength and vitality is only gained though nutrients that fight free radicals. What we know is true of the skin can be applied to your hair as well. Technically, each hair strand is a dead protein called keratin, but the follicle it grows from is very much alive. That’s why eating correctly has such an impact on hair’s health, and why yo-yo dieting and low-fat diets make hair brittle. When your body digests food, your hair is at the end of the line when receiving the good stuff. Nutrients are first directed to internal organs such as the heart, brain and kidneys, and then to the hair, skin, and nails.

Foods that contribute to healthy skin, cell renewal and good circulation are also good for hair. Make sure your diet contains foods that are rich in:

- Protein (meats, poultry, dairy, tofu)
- Iron (red meat, dark greens, beans)
- Zinc (oysters, beans, nuts)
- Copper (nuts, seeds, meat)
- Vitamin A (orange, dark green and yellow fruits and vegetables)
- Omega 3 Fats (fish oil, flax seed oil, pumpkin seeds)
A healthy diet is the very best remedy for healthy hair. Look for antioxidant protection and nutrition for the hair.

**Natural Home Remedies:**
Condition your hair with avocado.

**Homemade Hair gel:**
Use natural oils on your skin and hair such as almond or olive oil. Aloe makes a great styling gel.

**Homemade Hairspray:**

**Easy:** Hairspray made from lemons keeps hair in place and leaves it feeling soft. Chop 1 lemon (or 1 orange for dry hair). Place in a pot, cover with 2 cups pure hot water and boil until only half remains. Cool and strain. Place in a fine spray bottle and test on hair. If it’s too sticky, add more water. Store in the refrigerator, or add 1 ounce vodka per cup of hairspray as a preservative (with vodka the spray will keep unrefrigerated up to two weeks).

**Easier:** Mix 2-5 teaspoons of honey in a spray mist pump dispenser with a cup of warm water and shake well. Experiment with proportions. Refrigerate.

**Easiest:** Pour some beer into a pump spray bottle. Wah-lah. (Dadd, 212, 213)
Hair Coloring
I’m always amazed at the wide variety of shades and highlights and hair dyes available. They’re sexy and fun, but at what cost? Even though hair-dying products have long been suspect for having human carcinogens, many hair-dye chemicals, which can easily penetrate the scalp and enter the bloodstream, are not tested for safety. One of the primary chemicals, p-phenylenediamine (PPD), which is also identified under other long names, exists in virtually all commercial hair dyes (especially the darker colors). Research suggests that women over age 50 who have used hair dyes for ten or more years have an increased risk of cancer (bladder, ovarian, leukemia), which is not too hard to imagine especially when you see warning labels instructing women to avoid hair dyes while pregnant or while they are of child-bearing age.

Fortunately, as with many other beauty products on the market today, we have a wide margin of choices for more nontoxic and natural hair-color products than ever before, so we can play it safe with some of these unknown risks.

Alternatives with little or no PPD, ammonia, or peroxide include:

- Vegetal Colour, herbavita.co.nz
- Logona, logona.com
- Light Mountain Natural, iherb.com
- Naturcolor by Herbaceuticals, naturcolor.com
**Natural Home Remedies**

**Blonde:** Lemon juice (is there anything lemon can’t do?); Make a lemon rinse (about 1 tablespoon per 1 gallon of water) and allow it to dry in the sun.

**Brown/Brunette:** Black tea or coffee rinse.

**Red:** Make a strong tea of rose hips or cloves.

**Covering Gray:** Simmer 1/2 cup of dried sage in 2 cups of water for 30 minutes, then steep for several hours. Apply the tea to hair and leave until hair dries; then rinse and dry hair again. Apply weekly until desired shade is achieved, then monthly to maintain color. Henna is another natural choice. A powder made from this plant source can either darken or lighten your hair.

**Antiperspirants & Deodorants**

Junior high is a strange chapter in life, and mine brings back memories that could haunt even the most secure human being. Somehow we managed to survive the cafeteria food and those first attempts at dating. Somehow we lived through the embarrassment of sweaty palms at dances and stinky feet in gym class.

One of my history teachers wore solid blue shirts ironed as crisp as cardboard, which didn’t make any sense because every day by the end of class, he would have sweat rings the size of Frisbees under each arm. My seventh grade friends and I were totally grossed out. I remember thinking, “That will never happen to me!”

Poor Mr. Jones must have had overactive sweat glands. But we’re not willing to commit the social faux pas of raising our hand if all is not dry. Remember the old commercial, “Raise your hand if you’re sure”? The trouble is, we’re not very sure about our choices anymore. We know about the delicate gland and lymph system around the breasts and armpits, and by now, we’ve all heard the controversy about aluminum in antiperspirants.
The Stink About Antiperspirants

Various organization and advocacy groups have raised concerns about possible links between aluminum compounds in antiperspirants and everything from breast cancer to kidney problems to Alzheimer’s. Reputable organizations say there is not reliable research to support any of their claims and the FDA has published their opinion: that these compounds can be of concern for people with impaired kidney function, but nothing more. We want to believe there’s no danger but don’t feel safe relying on published opinion. So, what do we know?

- We know deodorants don’t keep you from sweating; the alcohol or other chemicals in them kill some bacteria, and the burst of fragrance covers up the rest. But you still sweat.

- We know antiperspirants operate on the principle that if you don’t sweat, you don’t smell. How do you keep from sweating? Easy: block the pores under your arm. Nearly all antiperspirants accomplish this task by using aluminum compounds—usually aluminum chlorohydrate or aluminum zirconium—to constrict sweat glands and pores.

The concern here is again a cumulative one. Our bodies are absorbing aluminum through many different sources and they do not all have equal access. Aluminum oxide (oxidized from being exposed to the air), is seen in the gray dust left on our hands after climbing on aluminum ladders. This form is absorbed into the body more readily than other forms. Aluminum hydroxide is another chemical compound that is easily absorbed. The form of aluminum compounds in antiperspirants can displace necessary minerals that should be in your cells. Aluminum has no purpose in the body. So if it’s in there, it is taking up valuable space.
Aluminum Toxicity

Aluminum is ubiquitous in our society. It is the third most prevalent element in the earth’s crust and it can be found in almost all public water supplies. But the threat that aluminum poses to our health comes from the fact that it is used in so many products—literally thousands, from stepladders to deodorants.

In fact, over-the-counter medications can be one of the largest sources of personal contact with aluminum. Frequent users of buffered aspirin, such as people with arthritis, could possibly take in up to 700 mg of this metal each day. A typical dose of aluminum-containing antacids can contain as much as 200 mg, and an entire day’s use can supply 800-5,000 mg of aluminum. Digestive aides such as diarrhea and hemorrhoid medicines can also contain aluminum. Aluminum is also often added to hygiene aids such as antiperspirants and douches.

Food cooked or stored in aluminum pots and aluminum foil can be another source, and aluminum salts are used as additives in cake mixes, frozen dough, pancake mixes, self-rising flours, processed cheese and cheese foods. An average sized pickle contains 5 to 10 mg if it has been treated in a solution of alum, a form of aluminum sulfate that is used to make pickles firm.

Although there is no known need for aluminum in the human body (or for any animal, as far as we know), aluminum ions can be found in most kinds of animal and plant tissue. Aluminum causes problems in the body largely by competing with several other elements with similar characteristics. If you are deficient in such minerals as magnesium, calcium or iron, aluminum is always there to take their place inside your cells. In a process called displacement, the body will take up elements or compounds that are similar to essential nutrients.
For example, in aluminum-related bone disease, defective mineralization results in aluminum being deposited where calcium would normally be placed.

The body absorbs aluminum poorly, and successfully excretes most of the aluminum that is taken up, but any excess is deposited in various tissues, including bone, brain, liver, heart, spleen, and muscle. In certain tissues with relatively low turnover, aluminum is difficult to remove once in place, resulting in long-term damage. For example, aluminum causes oxidative stress in brain tissue. Since the elimination half-life (the time required to reduce contamination by 50%) of aluminum in brain tissue is seven years, deposition can result in cumulative damage to the nerve cells.

Aluminum also has a direct effect on the formation and development of red blood cells. Excess aluminum can cause anemia, most likely due to the displacement of iron in these cells. Other cellular mechanisms of aluminum toxicity include inhibition of enzyme activity and protein synthesis, alterations in the function of DNA, and changes in the permeability of cell membranes.

For most of us, aluminum toxicity is not a problem—as far as we know. The incidence of acute aluminum toxicity is rare, usually occurring only in patients with reduced kidney function. Dialysis patients, especially, should be aware of the aluminum content of the water supply in their dialysis facility. The incidence of low-grade aluminum toxicity, however, is not known. Patients suffering from renal disease typically may complain of muscle weakness, bone pain, non-healing fractures, alteration in mental function, and premature osteoporosis. How many of these symptoms are caused—at least in part—by excess aluminum is difficult to know.
The bottom line is to know the dangers of aluminum toxicity and weigh the risk. Keep in mind that even though Americans may be disgusted with perspiration, the body is designed for this method of daily cleansing. One choice may be to choose a more natural and less toxic brand of deodorant and antiperspirant. For those of us living in cool climates, natural deodorant is an easier solution. However, if you call the Deep South home, your choices will be more difficult. Be creative and try alternating during the seasons. When you can, dare to sweat a little.

**Things to consider:**

- Deodorants can contain triclosan.
- If there’s a fragrance, you can also count on phthalates being in the mix.
- Aerosol sprays make chemicals easier to inhale.
- If you use antiperspirants, be intentional about avoiding aluminum in any other products such as foods, digestive aids, or soda cans.

**Solutions:**

- Wear deodorants rather than antiperspirants in cooler weather, when you won’t be in close proximity to others or presenting in front of large groups of people.
- If you choose antiperspirants, wear them for only limited amounts of time and shower off the residual of the antiperspirant before sleeping so your body at least has the night hours without it.
- If you choose antiperspirants, be sure to do a monthly detox regimen to help support your body’s ability to cleanse.

**Products to Try:**

- **Burt’s Bees Herbal Deodorant**  
  burtsbees.com
- **Crystal Stick Deodorant**  
  crystaldeodorantprotection.com
- **Kiss My Face Active Enzyme Stick**  
  kissmyface.com
- **Tom’s of Maine Natural Deodorants**  
  tomsofmaine.com
Bright, White, And Pearly

How many elevators have been cleared and romance killed with bad breath—on commercials anyway? Americans are well aware of the social death that lurks with a mere slip of forgetting one’s mouthwash or breath mints. And oh, the agony of teeth that are not Antarctic-white.

How much is your smile costing you each year? Mesmerized, we stand gazing up and down the dental aisle at the overwhelming myriad of choices. And each person in the family wants a different kind: ultra whitening, sensitivity soothing, breath tingling, cavity fighting, tartar preventing—and then there’s the choice between paste or gel, wintergreen or cool mint. We haven’t even reached the mouthwashes yet.

Teeth Whiteners & Rinses

Donna: Dave, your teeth are nice and white. I’m curious about what Dr. Wentz has to say about a healthy smile. Everyone seems obsessed with whitening their teeth these days. Are these products safe?

Dr. Wentz: All toothpaste comes with mild abrasives to help keep teeth clean; whitening pastes and rinses contain additional polishing or chemical agents with extra stain-reducers.

Donna: Chemical agents, huh? What about the long-term effect on our teeth and gums?

Dr. Wentz: Well, we know excessive bleaching has the potential to pit tooth enamel and can cause nerve damage. We’ll need to research the other ingredients more carefully. As with any new product, we can’t understand yet the long-term effects of inappropriate use.

Dave: I say, enjoy your smile, but read the warning labels. Always take them seriously. The side effects are already toned down for marketability. Some whitening is nice, but be conservative in your approach. Your teeth need to last a lifetime. If you have any question, check with a biological dentist.
Dr. Wentz: Yes, I agree with that. The good news is that the demand for whiter teeth has young people more conscious of their smiles and overall teeth health. Healthy mouths have been directly linked to healthier bodies. So, it’s great that they are in vogue.

Donna: CSI recently aired an episode featuring a case where a woman died of fluoride poisoning. She O.D.’d on toothpaste. I’m confused with all the literature and the wide array of products.

Dave: It’s easy to make assumptions about mouth products. We think that because the product has direct access to our throat, that it must be safe. It’s just not true. Take fluoride for instance.

Fluoride
The tap water of sixty-six percent of the population of the U.S. is treated with compounds of fluoride with the intended purpose of reducing tooth decay. What many of us don’t realize is that the intake of excessive amounts of fluoride can have negative effects on bone and teeth. Exposure to high levels of fluoride may also alter brain development.

Fluoride is quickly becoming one of the most controversial substances in modern society. On one side of the issue, the U.S. Centers for Disease Control, which named water fluoridation “one of 10 great public health achievements of the 20th century.” On the other, opposition groups who consider water fluoridation a conspiracy of compulsory mass medication, as well as posing negative health effects that more than cancel out any positive contribution to public health.
Fluoride in the Water You Drink

Even if the health benefits of fluoridation were accepted for the sake of argument, adding forms of fluoride to the public water supply is no longer needed. Today every child receives more than adequate amounts of fluoride from food, water and other sources, including the more effective topical application of fluoride in toothpaste. Several studies have shown that there is no significant difference in dental decay rates between areas where water supplies are fluoridated and non-fluoridated areas. Several of the world’s most advanced nations, from Germany to Japan, have discontinued fluoridating their water supplies. In countries where fluoridation has ceased, there has been no major increase in decay rates.

Evidence continues to accumulate that water fluoridation results in serious health risks due to:

- Increased risk for bone fracture
- Adverse thyroid function
- Adverse neurological effects

The fluoridation conflict involves not just public health officials or dental authorities. On August 9, 2007, over 1,730 health industry professionals, including doctors, scientists and researchers from a wide range of disciplines, presented a petition to the U.S. Congress calling for “urgent . . . action to end water fluoridation.” How much more scientific evidence and public concern is needed to remove this potential poison from our water supplies?
Fluoride in water associated with low IQ scores in children

According to recent studies of populations in China, exposure to high levels of fluoride may also alter brain development. The results from a 2007 study in China’s Shanxi province show that excess fluoride exposure can result in lower scores in intelligence tests. A total of 524 children were examined for intellectual functioning and growth. One group of children were exposed to naturally occurring high concentrations of fluoride in well water while a control group of children were from nearby villages with low concentrations of fluoride in well water. In the group drinking high fluoride well water there were lower overall IQ scores, a greater number of lower scores and fewer high scores. The test result differences were enough to negatively affect a child’s ability to perform in school. This report corroborates the results of a 2003 study performed in Jiangsu Province warning that drinking water with fluoride levels greater than 1.0 mg/L may adversely affect the development of children’s intelligence.

The levels of fluoride in well water in this study are likely well above concentrations in U.S. drinking water supplies. However, at this time the total intake of fluoride by the average child—from drinking water, soft drinks, bottled water, toothpaste, mouth rinses—is unknown. Additional studies are needed to measure overall fluoride exposure in children to prevent potential neuro-developmental deficits, as well as fluorosis.xvii

Mouthwash

Most mouthwashes contain ingredients, such as formaldehyde, that can be harmful if swallowed in large amounts.

You’re getting the hang of this by now, right? The above statement is true. As with the other products we are putting in our mouths, and on our skin, we cannot assume they are safe because they can be breathed or swallowed or absorbed. I find it interesting the same germ killers (phenol, cresol, and ethanol) that are used in bathroom disinfectants are also formulated (obviously, in lower concentrations) in
We know the culprit foods that may bring on the bad breath; garlic and onions, for example, get absorbed in the bloodstream and are exhaled through the lungs and this process can continue a few days after you’ve eaten. Tobacco use, of course, causes bad breath, but so can dry mouth since saliva helps to clean the mouth.

Daily brushing, flossing, and drinking plenty of pure water should prevent bad breath, but if you have lingering bad breath you may not be aware of it. When bacteria encounter food particles in and between your teeth, foul-smelling breath results. Thorough brushing and flossing will help immensely, and you may want to try a tongue scraper. This simple tool will do as much if not more than a chemical mouthwash to help solve bad breath.

**Easy solution:**
Consider rinsing with water flavored with an extract such as peppermint, anise or cinnamon.

**Solutions:**

- Take a high-quality calcium supplement to improve life-long health of your teeth.
- Drink filtered water. [See Kitchen, Section 5]
- Choose toothpaste without fluoride.
- Always floss.
- Buy mouthwash from a natural-foods store.
- Consider a tongue scraper.
TRUE OR FALSE?

**Combining over-the-counter acetaminophen, like Tylenol, with a cold medicine, can be cause of fulminate liver failure—better known as death.**

Every morning, regardless of what awaits our full attention in the coming hours, we must think of ourselves as our body’s CEO. Daily we are faced with health decisions with long-lasting ramifications. How should we treat our ailments? With natural remedies, ointments, over-the-counter drugs, prescription drugs, possible therapies or medical procedures? Like any good business strategist, we must look beyond quick, easy fixes, and realize that sound investments in our health now—will offer better, more lasting rewards in the long run. And, like most successful business plans, the key to healthy living starts with something very simple: the cell.
In 1998, the Science and Environmental Health Network met a summit of doctors, scientists, and officials to decide what to do when there was uncertainty or disagreement in the scientific community about the safety of a new product or development.

“When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.”

Science and Environmental Health Network, “Precautionary Principle,” sehn.org/wing.html

Medications

We are now seeing reports on many drug-induced diseases, not to mention the crazy, devastating reality of deaths caused by adverse drug reactions. We tune out the lengthy rambling of drug warnings after commercials or the full page of miniscule print on the backside of new drug ads in magazines. It’s time to dial in. Our meds can be a masquerade of danger. Toxic in the truest sense of the word, synthetic chemicals foreign to the body must be flushed through the liver.

Did you know that when the FDA approves a medication for use by the general public, less than half of the serious drug reactions are known? To find out about the other half, the FDA relies on the consumer. Whether we realize it or not, Americans are the guinea pigs for determining the safety of some of the world’s most dangerous drugs. If you have purchased recently released drugs or have taken free samples provided by your doctor, you too, are part of this ongoing clinical trial. The use of prescription medication is the third leading cause of death in the U.S. That means an adverse drug reaction is five times more likely to kill you than an automobile accident. The astounding news is that researchers agree that over half of these deaths should and can be
avoided. You can significantly reduce your risk. Ray Strand, M.D., author of *Death By Prescription*, provides practical solutions to avoid a life-threatening reaction to what you might have in your medicine cabinet.

### 12 Steps to Protecting Yourself from an Adverse Drug Reaction

We are vulnerable to the choices made for us by institutions and governmental agencies, but we have more influence than we realize. Dr. Ray Strand empowers his readers to make safe and effective choices when taking prescription medicines with these Twelve Easy Steps.

1. Make changes that will keep you healthy for the next 20 years and avoid taking medications in the first place. Even if you are on one presently, your health may improve enough to discontinue in the future.

2. Choose a primary-care physician with whom you openly communicate and trust. He or she should be familiar with you and your health history and able to orchestrate your care by keeping records from all the specialists you are seeing.

3. Make a list of all prescription medications, over-the-counter drugs, herbal therapies, and nutritional supplements you are taking, and put them on a card that will fit in a wallet so it is always available.

4. Many medications are known to cause potential harm to various organs of the body. Follow carefully all recommendations for future lab work and checkups with your physician.

5. Be sure that the drug you are taking actually meets the goals you originally established with your physician. If it doesn't, ask to discontinue it and try a different med or therapy.

6. Do whatever is necessary to communicate effectively with your physician about drugs he or she is prescribing.
The doc should know specifically what other meds you are taking. Pull out your medication list card. Ask specific questions.

- Is there any way I can avoid taking the medication?
- Are there any lifestyle changes I can make to improve my condition?
- Can I delay staring the medication until I’ve tried other alternatives?
- When can I plan to ease off the medication?
- What is the expected outcome of taking this particular medication?

7. Gather more detailed information from the Physician’s Desk Reference or internet.

8. Choose a pharmacy where the pharmacist will talk with you. Discuss the potential side effects and adverse drug reactions of any new drug that your physician has prescribed.

9. Have all your prescriptions filled at the same pharmacy. Many serious drug interactions involve the combination of an acute-care med (like antibiotics or pain medication for an injury) with long-term medication the patient has been taking for years.

10. Choose drugs that have been on the market for at least five years. Most are less expensive and even generic.

11. Remember, drugs are a lot like taxes—they are easy to add, but it takes an “act of Congress” to reduce or eliminate them.

12. Most important: If you feel that you could be reacting in any way to your medication, contact your primary-care physician immediately. Discontinue the drug, if possible, until this question is totally resolved.

For more detailed help with medications, visit www.raystrand.com
Say, “Ah!”
Lean close to the mirror and open wide. Take a close look at your teeth. What do you see? If you see a silver lining, this is one time it’s not a good thing. Those fillings are made of mercury. Fools’ silver. The term has never been more properly used. Every time you chew or drink hot liquids with metal fillings in your teeth, mercury vapors—the most toxic metal on planet earth—are being released into your mouth.

Millions of people are being exposed to mercury through their workplaces, their home environment, the products they use and their diet. In spite of posted warnings, most people are still largely unaware of the far-reaching effects of such poisons in their cells. Large industrial battles seem too overwhelming to tackle, but the most important personal source of exposure is close to home—dental amalgams.

**FACT:** Every time you chew or drink hot liquids with metal fillings in your teeth, mercury vapors—the most toxic metal on planet earth—are being released into your mouth.

**Mercury Exposure**
While the amount of mercury absorbed from exposure to various environmental and occupational sources can be substantial, this pales when compared to the amount of mercury being absorbed through our mouths—from silver amalgam fillings (which are actually over 50% mercury). Simply put, if you are walking around with metal fillings in your mouth, you are your own primary exposure risk to mercury!
Mercury: “Water Silver”

Mercury is only one of the poisonous toxins wreaking havoc on our health, yet it happens to be the most toxic non-radioactive heavy metal on the planet—many times more poisonous than arsenic, lead, or cadmium. The tiniest amount of mercury, once absorbed by the body, can inflict widespread damage to cells, tissues and organs. According to the World Health Organization (WHO), there is no known safe level of mercury for humans. It is toxic in extraordinarily small amounts, and each atom of mercury that enters the body will inflict harm. No problem, you say. I don’t intend on licking any metal today!

The secret dark side of mercury is that it can be morphed into just about any product we find on the market today. Consumers just don’t know it’s there. We can find mercury in antiseptics, batteries, cosmetics, diaper products, electric switches, energy efficient lights, fabric softeners, farming, finger printing, floor wax and polish, paints, perfumes, photography, tattooing inks, wood preservatives—the list is endless.

Mercury is the only metal that is liquid in its elemental state. Its chemical symbol, Hg, is derived from the Greek word ἕδραργυρίας, meaning water silver. At room temperature, the liquid metal releases vapor as a poisonous, odorless and colorless gas. The amount released increases with temperature. Once inhaled, mercury vapor readily passes from the lungs and immediately enters the bloodstream. What is not stored in the blood cells quickly diffuses into the other cells and tissues throughout the body. The fact that elemental mercury, the same form used in amalgam fillings, releases mercury vapor at room temperature, explains why the metal is so much more poisonous than other heavy metals. Mercury can poison and kill virtually every cell in the body. No matter where it is located in the body, this particular heavy metal is harmful for as long as it is present.
A potent neurotoxin, mercury targets the brain, including the cerebral cortex, motor and sensory centers, the temporal cortex (hearing), and the cerebellum (muscle coordination). Elemental and organic mercury have a high affinity for nerve cells and readily cross the blood-brain barrier, which is the protective vascular membrane separating the brain from the rest of the body. Once inside the brain, these forms of mercury have a particularly destructive effect on the nerve cells. Fortunately, some symptoms related to mercury toxicity will diminish or disappear completely when sources are removed. Improvement is even greater when combined with a mercury detoxification program.

When I was a boy, I played with a ball of mercury from a thermometer. Though it was mesmerizing, we weren’t allowed to touch the fun mercury balls when a thermometer in the lab broke. We knew back then that it was toxic and we used a sheet of paper to pick up the liquid metal ball and roll it around and around. We then had to throw it in the trash, which likely contributed to ground water pollution in the future. Dentists know the same thing is true when handling the material used to make fillings, treating the dangerous material as the biohazard it really is. I may not have known this to be true as child, but it is a lie to say that the mercury is stable when placed as a filling in your mouth.

If you have a mouth full of mercury fillings, when you chew you are creating enough mercury vapors that the environment in your mouth now exceeds OSHA standards—you wouldn’t be allowed to work in a room with that much mercury vapor. And yet we release all these vapors in our mouth and absorb them right in to our sublingual and straight into our brain.
The American Dental Association (ADA) has now given warnings for removing fillings because the heat of the drill releases vapor and pieces of mercury may be swallowed. Why aren’t they worried about these fillings being ground during chewing or heated while drinking coffee or eating soup? And what about the fact that the life of a mercury filling is approximately 7–15 years (eventually most fillings fall out or are damaged and can easily be swallowed)? Have you ever wondered why this governing agency has administered such strict disposal rules for old fillings if they are safe?

Dr. Wentz - The FDA admits mercury fillings are harmful

After years of negotiations and stalling, the U.S. Food and Drug Administration (FDA) has finally admitted that mercury from amalgam dental fillings may be toxic to children and developing fetuses. The admission came when the FDA settled a lawsuit filed by Moms Against Mercury and others concerned about mercury exposure. And yet, the use of mercury amalgams in dental fillings continues, despite a steady decline due to public awareness.

This important step toward eliminating mercury use from all medical practice was thrilling to me. Anyone who knows me even casually has to be aware that the banishment of mercury amalgams in dental fillings has been one of my passions for many years. I have researched in depth and wrote a book titled, A Mouth Full of Poison.

Mercury is a poison, and it has no place in the mouths of humans (or animals, for that matter). Yet the professional dental community and government health authorities have steadfastly denied that any harm is being done by the use of mercury in dental fillings, despite a wealth of evidence to the contrary. As part of the court settlement, the FDA agreed to alert consumers
about the potential health risks on their Web site. I believe this court ruling is a necessary first step in completely banning the use of mercury for all medical and dental procedures.

How do we get rid of Mercury?

Not only are heavy metals of serious concern because of their devastating effects on the body, but also because of their persistence in the body. The body is a potential storehouse for dangerous toxins. Even if you block all sources of current toxic exposure such as mercury exposure but do nothing to support your body’s ability to remove it, the accumulation it will take years, perhaps a lifetime, to be eliminated. Mercury never just disappears on its own, and if your body is not able to eliminate it, this poison will stay in your body pretty close to forever.

The fact is that mercury is removed atom by atom through the actions of the body’s detoxification systems, including several powerful antioxidants (substances manufactured by our cells or supplied through our diet) that reduce oxidative damage. Some antioxidants can chelate (bind) with the poison to remove it from the cells and carry it out of the body. However, if you are deficient in antioxidants or the detoxification systems of your cells are impaired, or if there is simply too much mercury entering your body, this elimination process can be overwhelmed and shut down. Fortunately, if the sources of contamination are removed and our bodies’ detoxification systems are given optimal nutritional support, the process can be markedly accelerated.

RESOURCES

If you want your opinion to be considered for the final FDA ruling on mercury amalgams, you can use this link to obtain instructions on how to submit your comments:

Mercury Inventory

For a complete mercury risk assessment, please refer to Dr. Wentz’ book A Mouth Full of Poison or our Web site www.SimpleTruthstheBook.com. In the meantime, you can get a general idea of some of your mercury risk factors by taking a quick inventory of your health and behaviors.

1. Do you have one or more amalgam fillings? _____
   If you answered yes to question 1, please answer the following questions. Otherwise, move ahead to question 2.
   a. Do you chew gum regularly (two or more times a day)? _____
   b. Do you grind or clench your teeth regularly? _____
   c. Do you brush your teeth three or more times a day? _____
   d. Do you regularly use an electric tooth brush? _____
   e. Do you drink two or more hot drinks (e.g. coffee, tea) a day? _____
   f. Do you drink two or more acidic drinks (e.g. soda, fruit juices) a day? _____
   g. Do you regularly smoke cigarettes? _____
   h. Do you take a hot bath or sit in a sauna once a week or more? _____

2. Did your mother have amalgam fillings when you were conceived and/or when she nursed you? (Note, if you are unsure or cannot verify this information, we recommend you answer Yes.) _____

3. Did you receive most or all of your childhood vaccinations? _____

4. Do you eat mercury-containing fish (tuna, shark, swordfish, trout, bass, pike) two or more times in an average month? _____

5. Do you live downwind from a fossil-fuel burning power plant? _____

6. Do you live near any facilities where mercury is released into the atmosphere or the aquatic environment? Consider refineries, mines, and pulp mills. _____

7. Do you live in an agricultural area where herbicides and pesticides are used? _____

Take stock of how many questions to which you answered “Yes.” If you had three or more positive responses, I recommend you take our full mercury assessment at www.SimpleTruthstheBook.com. There, you’ll get a more complete picture of your risk level as well as steps you can take to reduce that risk. Remember, even a single amalgam filling could be poisoning your body, and seemingly harmless habits, such as chewing gum or drinking coffee, could increase your exposure.
The bottom line is to know the dangers of aluminum toxicity and weigh the risk. Keep in mind that even though Americans may be disgusted with perspiration, the body is designed for this method of daily cleansing. One choice may be to choose a more natural and less toxic brand of deodorant and antiperspirant. If you use antiperspirants, be intentional about avoiding aluminum in any other products such as foods, digestive aids, or soda cans. For those of us living in cool climates, natural deodorant is an easier solution. However, if you call the Deep South home, your choices will be more difficult. Be creative and try alternating during the seasons. When you can, dare to sweat a little.

If this information is new to you, I hope I’ve piqued your concern about the dangers of mercury and how your amalgam fillings affect your health and the health of your family. I still find it hard to believe that a trained health professional can knowingly expose his or her patients to this poisonous substance.

When my dad learned that he’d been misled and that our fillings were poisoning us, we immediately had our amalgam fillings removed and replaced with biocompatible alternatives. Next we followed a mercury detox program to rid the body of the mercury that had accumulated with the support of nutritional supplements.

[Editor’s note to focus group: more information on mercury detox coming]

Solutions:

- Talk to a biological dentist and set up plan to get rid of them.
- Don’t chew gum and cut down on hot drinks.
- Quit smoking—just one more reason to stop now.
- Cut down on mercury-contaminated fish; you can get your healthy fatty acids from other sources

Books to Read:
Dr. Myron Wentz, 
A Mouth Full of Poison
Brenda Watson, 
The Detox Strategy
Theo Colburn, 
Our Stolen Future
Tub, Toilet, Tile, & Other Troublesome Things

Dr Wentz’s Floating Laboratory

Dad has a sleek, James Bond kind of yacht, which he appropriately named La Vie, meaning, of course, “The Life.” People who don’t know Dr. Wentz might assume that this multi-millionaire scientist is a typical celebrity living the envied lifestyle of the rich and famous. However, all you need to do is come aboard La Vie to learn that it really isn’t just a yacht at all. It is a floating laboratory, as pristine as it was the day it was delivered many years ago. Everything you eat, drink, wear or touch is geared to enhance health.

When you come aboard, of course you remove your shoes and put on clean, white athletic socks so you won’t tarnish the decks. You notice that every part of every piece of machinery and furnishing looks new. That’s because he keeps an inventory log and immediately replaces or refurbishes any imperfection. Just like the healthy cells he grows in his laboratory, his yacht appears to be nourished with the right ingredients in the right proportions to remain young indefinitely.

Planning on going for a swim? No problem, but hopefully you’re not too modest. Before you’re allowed to climb back aboard via the swim-step, you are cordially asked by the crew to remove your bathing suit and enjoy a full body shampoo. Then you are provided with a wrap-around towel and your white sweat socks, and given the green light to come back on deck, no longer carrying any toxic substances you may have picked up during your swim. We always laughed when guests would peer behind themselves to see if there were other boats in the area with sets of binoculars leering at the nudes having a mandatory bubble bath, scrub-down on La Vie.

Like my dad on his boat, we can be obsessed with keeping bathrooms clean and shiny. But there is an important difference: Dr. Wentz doesn’t use any caustic chemicals. We, on the other hand, having become hyperaware of the germs and bacteria or molds that grow, add countless dangerous chemicals until fledgling bacteria may be the least of our worries. In our best effort to keep a healthy home, we liberally splash and scrub with products containing
two of the most hazardous chemicals in the home—ammonia and bleach. Those new handy Clorox wipes are more dangerous to our families than they are to our germs (to which the whole family is already adapted).

**Tub & Shower**

What happens when you combine these chemicals? We know about some of those reactions. For example, take the common shower: tile wall and glass door. There’s mold in the grouting between the tiles and you spray on any of the most common mold killers, most of which contain chlorine bleach. Now you notice that the glass door is spotted. You grab your blue ammonia-based window cleaner and guess what? Those two chemicals—chlorine and ammonia—instantly create a toxic, lung-damaging gas cloud. Turn on the hot shower to rinse the cleaners away and it actually gets worse. The shower stall is clean, all right, but you’ve just inhaled some really dangerous stuff, not to mention the residual chemicals in the tub and shower that we stand on barefoot while the toxins seep up into the soles of our feet.

This is another of those absurd ironies: How often do you see people dying from household germs? How often do you see people dying from degenerative diseases brought about by environmental toxins?

**Toilet**

**Toilet bowl cleaners and tablets kill your cells along with the smells.**

Granted, each room needs to be cleaned thoroughly and the bathroom can be a germy place. However, these germs are generally familiar to your family and are not to be feared and fought with an extreme arsenal of toxic chemicals. Believe it or not, baking soda can sufficiently clean every surface in a bathroom except the windows and mirrors. Use it in place of chemical scouring powder to get grime out of the tub or sink. For chrome and tougher spots, make a paste from baking soda. It’s great for bathroom tiles. Sprinkle on and scrub off with a damp cloth or sponge. And, it’s a thrifty, earth-friendly choice. Just think, you can buy a new indoor plant with the money you’ve saved.
Homemade Remedies

Window cleaner: 3 cups water  
¼ cup white vinegar  
1 tablespoon lemon juice 
mix and spray

Toilet bowl cleaner: ½ cup baking soda  
Option 1  
¼ cup white vinegar  
10 drops tea tree essential oil  
Combine, scrub with brush, and flush  
(Source: Karyn Siegel-Maier)

Toilet bowl cleaner: ½ cup liquid soap  
Option 2  
plus 2 cups baking soda  
Mix well  
Add ¼ cup water plus  
2 tablespoons vinegar to make foam

Drain cleaners

You know those horror movies where someone throws acid in someone else’s face? Same stuff. Drain cleaners are all seriously caustic poisons. Think about it: their job is to dissolve human hair and waste in drains. Note the word “human.” They do the same thing to your skin. Don’t splash, don’t inhale. In fact, don’t have them in your home. Period. You don’t need them.

The best solution is to keep drains from getting clogged in the first place by using a cheap metal screen (purchase at hardware stores or home improvement stores) over the drain. If a clog occurs, use an old fashioned rubber plunger (but NEVER after you’ve already tried a caustic cleaner). Rent a snake, a common plumbing tool. (Plumbers get chemical burns. Talk about the worst stuff to put into our water systems!) There are also biological or enzyme-based drain cleaners, better at keeping drains clear than unplugging clogged ones.

Products to Try:

Bio-clean drain cleaner, statewidesupply.com  
Citra-Drain Natural Enzymatics, citra-solv.com  
Drainbo Drain Cleaner, drainbo.com  
Earth Enzymes Drain Opener, ecos.com
Quick Fixes with Lasting Results
The cumulative effect of bathroom toxins demands our heightened awareness, especially in such a small, poorly ventilated area as a bathroom. In our early dialog, Dr. Wentz mentioned that these are some of the easiest fixes with long-term benefits. Not only are they easy, they are inexpensive. Big change isn’t easy especially when life is busy. But making small, incremental changes isn’t.

Solutions

- Install a high quality exhaust fan. If possible, leave a window open.
- Consider putting a water filter on the shower.
- If your home/yard permits it, consider installing an outdoor shower.

Walk-In Closet
From our knickers up, the fabrics we wear create our most intimate environment, touching our bodies directly—all day and, for most of us, all through the night. We love our favorites and endure the others. The fabrics that make up your clothes may not be the first thing that comes to mind when you decide what to wear in the morning—or when contemplating how healthy you may be. But these details definitely should be considered when planning your wardrobe, choosing laundry detergents, and deciding what you want closest to your skin at night. Is your wardrobe bulging with constrictive, synthetic fabrics? When you undress, do you find creases or red imprints on your skin from tight elastic bands?
I felt self-conscious about taking a look in Dave’s closet. Instead, I stepped back and listened in on father and son while they took a mini-tour of Dave’s walk-in.

Dr. Wentz: I’d say this is a marked improvement to when we lived on Pineview Avenue.

Dave: What are you saying, Dad? That you weren’t impressed with my organizational skills when I threw my soccer cleats and socks in on top of school clothes, legos, and library books? You told me to clean my room, and I did. [He laughs]

Dr. Wentz: [He takes a big sniff of the closet.] I thought I might be able to detect the smell of Perc, dry-cleaning chemicals. But I don’t. Hmm. These organizers are nice. Cedar. [A pause while he takes his time looking.] You can usually tell an egalitarian marriage by how much space each person gets in the closet. . . Where’d you get this suit? I like it.

Mark Twain once said, “The finest clothing made is a person’s skin, but, of course, society demands something more than this.” Indeed, Mr. Twain. As a result of society’s demands, our clothing holds strange and lasting power over us. Our wardrobe is personal. It expresses who we are, our social status, and how we are feeling. In fact, we can hardly think of ourselves apart from our attire. “Our clothes are too much a part of us for most of us ever to be entirely indifferent to their condition: it is as though the fabric were indeed a natural extension of the body, or even of the soul,” wrote Quentin Bell, an English art historian, author, and the nephew of Virginia Woolf.

Ranging from t-shirts and jeans, to biking shorts, to a fine array of formal evening attire, the mix of fabrics and industrial treatments they’ve been through is mind-boggling. As intimate an impact clothes have on
our lives, we know remarkably little about them. Our clothes not only define our outward appearance, they impact how long and how well we'll live too. From the way our clothing fits to the actual fibers in the weave, our threads play an important role in either contributing to our health or adding to our toxic burden.

Beauty or Bound

Sexy lingerie is one topic that grabs the attention of men and women with equal interest—well, almost. Just watch television around Valentine’s Day and you’ll see commercials from the biggest lingerie makers—promising you a new, sexy take on snug-fitting, synthetic-lifting, smooth-shaping underthings. And, we eat it up. What is there to worry about: Do corsets kill? Well, yes they did. But the fact remains that women know and love the secret power of fashionable and sexy undergarments. (And men applaud them for it.) Victoria’s Secret banks on raising blood pressure (as well as breasts) with the magic of plastic, styrofoam, underwires, and nylon. Perhaps, we need to expose these unseen powers-that-be and ask ourselves the simple truth: Are our undergarments toxic?
If bras could talk, a brief history

“Unmentionables” used to be those articles of ladies’ apparel that were never discussed in public, except in full-page, illustrated ads. How times have changed. The history of sensuous garments proves that although alluring women’s undergarments have never been known for comfort, they have been a mainstay of fashion and will continue to be. Recorded history of the bra actually begins thousands of years ago, as far back as Cretan times. However, 1907 was the year when the word “brassiere” was first reported in an American copy of Vogue. With its many designs and mechanics, the bra is as irreplaceable as steel beams in American society. Its allure and function hardly skipped a beat during the freedom years of the 60’s and 70’s.

Grandmother to the infamous brassiere was the corset. Structured with whale bone and tight laces, it pushed, pulled, and squeezed the bodices of women, evolving to such extremities that by the early 19th century, the “wasp waist” was the desired fashion statement. Debates ensued as to whether such excessive corseting should be allowed. Doctors strongly disapproved due to the number of health risks to women. In opposition, fashion experts of the day claimed this form of body modification was attractive and feminine—that it wasn’t necessary to “tight-lace,” and entirely possible to wear a Civil War era corset with few adverse effects.

Fainting rooms became popular when rib cages became so compressed that they actually overlapped and compressed internal organs disallowing the lungs to expand for a full breath. The phrase “the pains of beauty” applied to the radical discomfort and uncertain health of women who followed the fashion trends of the day. Fashionable ladies also spent a lot of time with their physicians with complaints of maladies ranging from poor digestion and headaches to difficult pregnancies. Doctors tried
unsuccessfully to convince their patients to loosen their laces as a way of relieving their aches and pains, but women were as fondly attached to their corsets as some modern women are to their makeup.

Despite the protests of the self-appointed fashion experts, the abolition of the corset wouldn’t happen until an acceptable alternative was available. In 1908, Fred Cox designed an undergarment called the ‘Liberty Bodice’ for his daughter, Freda. This was the start of an underwear revolution that would free generations of children to the point of bellies bulging out over tight low-rise jeans, a phenomenon better known as the “muffin top.”

**TRUE OR FALSE?**

**Women in cultures that wear bras get breast cancer more often than cultures that don’t.**

True. However, many factors come into play including diet, levels of stress, body weight, lifestyle, and childbearing practices, but the fact that women of other nationalities have remained “liberated” may also be a fact to consider. Tight bras can restrict the lymphatic flow under armpits. Lymph flow, the body’s cleansing systems for the muscles and extremities of the body, pump up along the rib cage and across the breast area. Wearing a snug, ill-fitting bra is like wearing a blood pressure cuff that has been pumped up tight and may be cutting off circulation of your immune system.

“I’ve always worn this size.”
Breast Health

Studies are inconclusive regarding direct correlation between binding clothing and breast cancer, but with clearer understanding of the skin’s permeability coupled with lymphatic flow, it seems logical to wear loose weave, organic clothing as often as possible. Christiane Northrup, M.D., bestselling author on topics of women’s holistic health says, “Every cell in the breasts and other organs is bathed in lymph. Lymph carries nutrients and immune cells throughout the body and filters waste products through the lymph nodes, where they can be detoxified. Stimulating lymph circulation through regular massage of the breast and chest wall area can help maintain healthy breast tissue.” Dr. Northrup has much more to say on women’s health. For further questions on breast health and cancer screening, I recommend reading her book, Wisdom of Menopause.

Healthy Breast Massage

A self-massage of the breast activates lymph drainage, increases blood flow, and oxygenates tissue—all good ways to create breast health. Below is a technique developed by Dana Wyrick, who practices lymphedema therapy at Mesa Physical Therapy/San Diego Virtual Lymphedema Clinic in San Diego, California.vii

Do each side independently. Instructions below are for the left side, reverse the hand instruction to do the right side. Use a light touch. Your object is to move the skin, not to massage the muscles. When done properly, the following routine will assist the lymphatic capillaries in removing toxins and impurities from the body tissue.

1. With the first three fingers of your right hand, locate the hollow above your left collarbone. Stroking from your shoulders toward your neck, lightly stretch the skin in the hollow. Repeat this movement five to ten times.

2. Now cover the part of the armpit that you shave with the fingers of your right hand held very flat. Stretch the skin of your armpit upward five to ten times.
3. Next, again using a flat right hand, lightly stroke (“pet”) the skin from the breastbone to the armpit. Do this above the breast, over the breast, and below the breast, repeating each path five to ten times.

4. Finally, using a flat right hand, lightly stroke from your waist up to your armpit on your left side, repeating five to ten times.

Men, our bodies need adequate circulation too. How constrictive are your clothes? What about work uniforms or tool belts? What about watches and belts? Is your shirt collar tight and miserable? Go down another layer. Are your socks tight enough to leave impressions after you take them off? What about your underwear?

**Boxers vs. Briefs**

Briefs have been held suspect for being too constrictive (holding the testicles too close to the body) and are the one of first items to get tossed when sperm counts are low. Though evidence is not conclusive as to whether boxers lower body temperature enough to improve fertility, we know a man’s reproductive organs are located outside of the body (in contrast to a women’s ovaries being located inside), because the testicles need to be cooler than the rest of the body to function properly.

Are boxers better then briefs? It’s been a common argument since elastic arrived on the scene in the 1930’s. Men are choosing their underwear for both comfort and fashion statements these days. Briefs offer more support; boxers are cooler and more hip. And now you can choose a combo of the two, stylish boxer-briefs, which take the long shape of boxers, but maintain the support of briefs. Which are better? Myths run rampant concerning men’s health below the belt, but the bottom line (no pun intended) is that every area of your body needs to breathe with uninhibited circulation.
Solutions

- Request a professional fit for your bra. Many department stores offer this service.
- Begin massaging your breasts for lymphatic health as a weekly routine.
- Remember, participating in disease screening is never a substitute for learning self-care.
- Before you get dressed, take a moment to pause in front of the mirror. Do it with kindness, but with honest scrutiny. Has your middle been expanding? Middle-aged spread is a myth, but central obesity is a major danger.
- Allow yourself looser undergarments. You shouldn’t ever have red creases left on your skin.
- Bounce! Purchase a mini trampoline (also called a rebounder or lymphasizer) and read the text that follows.

**Easy solution:**
Go up a size in your bra and take it off when you get home.

**RESOURCES**
*Dr. Susan Love’s: Breast Book*
*Christiane Northrup, M.D. Women’s Bodies, Women’s Wisdom: Creating Physical and Emotional Health and Healing*

**TRUE OR FALSE?**

**Bounce**

*Two minutes of bouncing flushes the entire lymphatic system and increases the body’s immune function.*

The body has a strong muscle with which to pump and circulate blood into every area of the body, carrying nutrients to every cell. However, the body also must excrete waste from each of its cells. “The lymph system cleans out toxic waste and health-threatening bacteria,” explains...
Dr. Robert G. Frost. “However, we have no specific muscle to circulate lymphatic fluid and cleanse the body. Because the body was intended to be jarred, to move, to run, bouncing improves the body’s own immunological system.” Tests at the University of California in Los Angeles have shown that regular bouncing increases the efficiency of the flow of lymphatic fluid along the collecting vessels. Says Dr. Frost, “This is the single most efficient way to improve health. No other exercise can match it.”

Lymphasizing (AKA Bouncing)

The idea of using gravity to improve health and fitness was developed in the American space program. Doctors found that when astronauts went to the moon for 14 days they lost 15% of their bone density due to the lack of gravitational pull or G-force. When the astronauts were weightless the bones lost minerals, which leads to osteoporosis. Increasing the gravitational force increased deposition of minerals in bone, which increased bone mass. This information about the effect of G-force on bone health led to the development of the lymphasizer. American researchers believe the lymphasizer provides the ideal aerobic and bone strengthening exercise.

Why bounce? At the bottom of the bounce, the increased gravitation pull forces toxins out of the cells. At the top of the bounce, the one-way valves in the lymph vessels open, allowing the released toxins to be carried away and excreted.

At the bottom of the bounce, the G-force is two to three times the usual gravitational pull on earth. In essence, the cells weigh more as the body is pulled downward by gravity. Cells compensate for this increased weight by becoming stronger; it is as if each cell is weightlifting. Lymphasizer exercise is resistance training at the cellular level.
Health benefits of bouncing

- Stimulates the lymphatic system
- Reduces body fat
- Increases agility and endurance
- Strengthens connective tissues and ligaments, cartilage and bones
- Firms legs, thighs, hips, and buttocks
- Increases the output of the thyroid, pituitary and adrenal glands.
- Increases production of red blood cells, which carry oxygen to tissues
- Increases lung capacity
- Strengthens immune system by increasing white blood cell production
- Reduces stress on weight bearing joints by 90%

Fashionable Quotes

I base most of my fashion sense on what doesn’t itch.  ■ Gilda Radner

It is an interesting question how far men would retain their relative rank if they were divested of their clothes.  ■ Henry David Thoreau

Women usually love what they buy, yet hate two-thirds of what is in their closets.  ■ Mignon McLaughlin, The Neurotic’s Notebook, 1960

When I free my body from its clothes, from all their buttons, belts, and laces, it seems to me that my soul takes a deeper, freer breath.  ■ August Strindberg

Fashion Law:  If the shoe fits, it’s ugly.  ■ Author Unknown

Fashion can be bought.  Style one must possess.  ■ Edna Woolman Chase

All women’s dresses, in every age and country, are merely variations on the eternal struggle between the admitted desire to dress and the unadmitted desire to undress.  ■ Lin Yutang

Never wear anything that panics the cat.  ■ P.J. O’Rourke
Dry Cleaning

Fumes from dry-cleaning chemicals can cause liver damage, mental problems, and cancer.

The mystery of how our clothes get cleaned at the drycleaners is one few of us care to unravel. After all, the point is for our clothes to look nice without us having to make them that way. Garments come back spotless and crisp, the charge is fairly cheap, and off we go relieved to have one less task to worry about. We've come to rely on professionally laundered clothing hanging there in our closet, neatly pressed and ready to grab off the hanger. The problem is that most of us don't have a clue about what is involved in the process of dry cleaning.

The first irony here is that the process is not dry. The second is that the process leaves your clothes anything but clean. Dry cleaning is actually a wet process wherein stain-removing agents are added to a machine that looks like a washing machine. It is called “dry” cleaning because the cleaning agents are not water-soluble. Perchloroethylene, a known volatile organic compound (VOC), the strong smelling cleaning agent that is most commonly used in the dry cleaning process, evaporates quickly. It looks like water but has a consistency like gasoline. Perc evaporates into your clothing, in preparation to remove the soiled spots. Then it goes through the washing process to remove what we think of as “soil”. But here’s the kicker, the cleaning process does not remove the solvent. Your garments are still soiled—not with mustard, spilled coffee, or body odor—but with toxic chemicals.
If you are wearing clothes that have been dry cleaned, you are being exposed to this chemical because it absorbs into the fabric and does not wash out. The Environmental Protection Agency (EPA) has finally had to address the dangers of perchloroethylene and its effects especially when used over prolonged periods of time. Long-term exposure can cause kidney and liver damage and has been proven in laboratories to cause cancer in animals. Because of this danger, the EPA has insisted that drycleaners be up to code by 2010 with the intention that perchloroethylene will be completely banned by 2023. Even so, most drycleaners are still using perchloroethylene because it is so effective.

Is dry cleaning necessary? Few of us know how to care for our expensive outfits without it. Specialists claim that all items can be cared for properly at home, even wool and silk. This may be an area of living where we can greatly reduce our exposure to toxins, if not ridding ourselves entirely.

**Solutions**

- Avoid drycleaners that use perchloroethylene. There are environmentally friendly drycleaners that do not use this chemical.
- Always remove the plastic and allow your clothes to air (outside if possible) before hanging them in your closet.
- Many “dry clean only” items are actually washable. Check the label to see if the item is wool or silk; if not, it can usually be washed on the delicate cycle of the washer and placed in the dryer on a low/delicate setting or air-dried.
- Clothing labeled “dry clean only” can usually be gently laundered at home after it has been dry cleaned just one time. The fabric is usually “set” after the first dry clean. Launder with a gentle detergent, delicate wash cycle, cold water and a low setting in a tumble dryer.

**Easy solution:**
Layer a cotton camisole or t-shirt under a sweater to get several wears before cleaning.
Natural Home Remedies

For silk or cashmere: Gently hand-wash each piece separately in cold water with a bit of gentle soap. Remove the excess water by rolling the garment up in a towel and then hang it up to dry.

For wool: Hand wash in cool water with a few tablespoons of vinegar. Dry in a towel; reshape it while it is still wet and let air dry.

Man-Made Fabrics

Dr. Wentz: One of the least likely places we think to look for toxic chemicals is in our clothes.

Donna: I’m pretty careful with mine. Most of the time they feel good, fit fine, leave no red lines. I figure my wardrobe is in pretty good shape.

Dr. Wentz: Do you mind if I take a look at the label on your jacket?

Donna: Not at all. [I hand over my suit jacket]

Dr. Wentz: I hate to burst your bubble, but we need talk about how this jacket came to be. It was created with some serious amounts of chemical processing. And that lovely blouse you’re wearing, is it wrinkle-free?

Donna: Yes. I love it! Can you believe it’s 100 percent cotton and it still looks this great after several hours?

Dr. Wentz: [raises his eye brows]

Dave: Man-made fabrics are often a complex stew of raw materials, which have to be chemically manipulated before they become the next fashion statement on the runway.
I would soon find out that to get a soft jacket like mine, made of raw materials (64% polyester, 3% rayon, and 3% spandex), takes a remarkable measure of chemical manipulation. And, as I might have guessed, the chemicals used to manufacture and process my entire outfit—yes, even my gorgeous 100 percent no-iron cotton—have been linked to health problems including cancer, immune system damage, behavioral problems and hormone disruption.

We often turn to synthetic fabrics for their low cost and ease of care, but as our budget allows, we should include comfortable cotton and breathable natural fibers. Most synthetic fabrics, from towels to dress shirts to bed linens, are treated with chemicals during and after processing. These chemicals not only leach into the environment, leaving an impact on groundwater, wildlife, air and soil, but they also may be absorbed or inhaled directly. Have you ever wondered what they are made of? SixWise.com offers an informative article, which listed the following processes:

- Chemicals are used to make fibers suitable for spinning and weaving.
- A formaldehyde product is often applied to prevent shrinkage. This product is applied with heat so it is trapped in the fiber permanently.
- Petrochemical dyes are used for color.
- Chemicals are added to make clothing softer, wrinkle-free, fire-retardant, moth-repellant and stain-resistant.
- Commonly used chemicals include volatile organic compounds (VOCs) and bleach.
- Nylon and polyester are made from petrochemicals.
- Rayon is made from wood pulp that has been treated with chemicals, including caustic soda and sulphuric acid.
- Dye fixatives used in fabrics often come from heavy metals.
- Clothing and fabric that is treated with flame-retardant chemicals, such as children’s pajamas, emit formaldehyde gas.
From the Frying Pan into the Fire

America has a budding love affair with “no-iron” pants and “wrinkle-free” blouses. Our new faves stay looking crisp and come right out of the dryer looking as if they’d been dry-cleaned. What we forget to ask the smiling sales associate, however is what chemicals might our new wardrobe favorites be treated with that makes them so easy. Don’t feel too comfortable about your 100% cotton just yet. Clothing labeled “no iron” contains perfluorinated chemicals (PFCs). Did you know that (PFCs) include the non-stick additive Teflon? Gives new meaning to “slipping on a pair of pants,” doesn’t it? These chemicals are increasingly being added to clothing because it makes them last longer and keeps them wrinkle-free. The U.S. Environmental Protection Agency (EPA) says that PFCs are cancer-causing compounds.

Shopping Smart

If at all possible, it’s best to stay away from the following fabrics in lieu of more natural options:

- Acrylic
- Polyester
- Rayon
- Acetate
- Triacetate
- Nylon
- Anything labeled static-resistant, wrinkle-resistant, permanent-press, no-iron, stain-proof or moth-repellant
Natural fabrics tend to breathe better than synthetic fibers and naturally wick moisture away from the body. These include:

- Cotton
- Linen
- Wool
- Cashmere
- Silk
- Hemp

If you are one who is especially sensitive to chemicals, it would be worth shopping for organic fabrics. Keep in mind that even natural fabrics, such as cotton, are usually treated with pesticides while they are grown, and some of those pesticides remain in the fibers. Organic fabrics are becoming more widely available and can be found in health food markets, specialty shops and online.\(^vi\)

**Don't Forget Your Shoes**

Nothing is as painful as hurting feet. But most of the women I know are willing to endure a little pain for the latest, fabulous shoes. I constantly remind my wife that feet deserve special consideration, and they aren’t getting it from shoe manufacturers that use loads of chemicals for processing and shaping. A few things to consider about shoes and feet:

- Much of the body’s detoxing takes place through the feet. Allow your feet to breathe and give them extra doses of TLC; you’ll need them for a lifetime.
- Our shoes travel through all kinds of disgusting things including pesticides, oil spills, and chemically treated carpets, etc. Have you ever thought about NOT parking them in the close confines of your bedroom or closet?
Solutions

- Wash and dry synthetic fabrics three times before wearing them.
- Shower before going to bed to remove all the toxins of the day; from the environment, some from your “vanity” pollution (perfumes, lotions, make-up, etc.), some from your clothing’s chemical cocktail.
- Allow your skin the ultimate breathing experience and build in longer margins between showering and getting dressed.
- Rediscover the importance of human touch.
- Treat yourself to a good pair of shoes.
- Go barefooted more often.

RESOURCES
Clothes that move for women on the move
titlenine.com/dream

FROM WENTZ IT CAME

Donna: I just wonder how much impact all these changes will really make.

Dr. Wentz: Scientists now have conclusive proof of what my study of human cells revealed decades ago—understanding the effects of external dangers to the human cell is one of the most powerful means we have for protecting ourselves.

Dave: Like investing money, time is our greatest commodity. The earlier we implement change and create habits that bring balance to our surroundings, the sooner we counter unnecessary wear and tear on our bodies.

Dr. Wentz: Donna, did you know that thirty-six different manmade chemicals can be found in breast milk of first-time mothers? These are chemicals like the ones we are asking you to avoid. Our discussion about simple truths has to start with adults, but my passion is really found down the hall and to the right—in the nursery, the kids’ room.