#### -BY SMITH JONAS

# GUIDE TO CREATING A GREENER AND HEALTHIER HOME

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# ABSTRACT

When it comes to climate change, we're inching dangerously close to the point of no return. This is what the world's climate scientists have been saying for more than a few years. But since the problem is so vast, it's easy to blow it off, burying your head in the sand and hoping it goes away on its own. So we wanted to offer some helpful tips on what you can do in your daily lives to put a dent in the climate change crisis. We hope to shed some light on the urgency of the problem through thoughtful deep dives that explore the systems and industry practices that exacerbate the problem and explore their social and ecological impacts. Within the series, you might also find some inspiring ways you can start to help make Earth more green and, hopefully, begin to turn back the clock on climate change.

# HOW YOUR HOME ENVIRONMENT AFFECTS YOUR MENTAL HEALTH?

The average person spends a lot of time thinking about their house. From maintenance and repairs to design and décor, it commands a lot of attention. But did you know that all of the different elements of your house are actually impacting your mental health and emotional well-being?



# Exploring the Relationship Between Your House and Mental Health

Houses provide more than shelter from the elements and protection from outside threats. They're extensions of our identities, personalities, and families. And whether we realize it or not, they impact how we think and feel on a daily basis.

Let's explore some of these relationships in greater detail.

#### 1. Housing Situation

First – and perhaps most importantly – your housing situation has a significant impact on your overall emotional well-being.

According to a 2015 policy brief published in How Housing Matters, there's a strong correlation between poor rental housing and adverse mental health conditions like depression. Specifically, the research suggests that poor housing conditions can lead to depression and hostility among residents, while perceived overcrowding has similar effects.

Additionally, the research shows neighborhood disarray – which includes vacant lots, dilapidated housing, vandalism, trash, etc. – contributes to feelings of hostility. On the other hand, those in "great neighborhoods" feel more cohesion, satisfaction, stability, and a willingness to help others.

#### 2. Clutter and Organization

Inside the home, clutter and disorganization (or the lack thereof) can have a significant impact on how you feel.

Research reveals that the average American home has roughly 300,000 items inside. Approximately 1 in 10 Americans have to rent offsite storage to store items they can't fit in their homes. In other words, clutter is a huge issue – and it's not good for mental health.

As Green Residential points out, "Clutter is often a key source of stress. Whether you realize it or not, it's mentally exhausting to account for all of these items and deal with the baggage they bring to the table." By reducing the amount of clutter that's present – and developing a system for organizing the items that you do have – you can gain the upper hand and enjoy a greater sense of peace and stability.

#### 3. Paint Colors

There's ample evidence to suggest that the colors we're exposed to on a daily basis affect our mood, behavior, and stress levels. This is true regardless of the setting, but the relationship between color and emotional well-being is magnified in the home.

By choosing paint colors strategically – particularly in key rooms like the bedroom and kitchen – you can enjoy greater happiness, satisfaction, and productivity. This helpful guide takes a deeper dive into which colors produce which emotions.

#### 4. Layout and Architecture

Over time, architecture, floor plans, and home layouts have evolved. Homes used to be very rigid and segmented. Walls and doors set each room apart from the rest of the home. In today's world of architecture and design, this is no longer the case.

Research has discovered that unrestricted spaces and open concepts are beneficial to mental health and allow the mind to create multiple perspectives about the surrounding environment. It may even strengthen cognitive abilities.

#### 5. Natural Environment

"Wherever it's located, substandard and deteriorating housing can contribute to a variety of serious ailments," Habitat.org notes. "Respiratory diseases, lead poisoning, cancers from toxic materials, neurological disorders, stress, psychological and behavioral dysfunction."

According to Habitat, as much as 40 percent of asthma cases can be attributed to factors within the home – such as the presence of mold, pests, or certain chemicals. These physical symptoms also impact emotional well-being – often leading to stress, anxiety, and a sense of hopelessness.

There's also something to be said for having a view. There's a strong connection between green spaces, blue spaces (water), and lower psychological distress. Having access to these views provides a sense of calmness and has a way of centering the soul. Most people know that their homes have an impact on their physical health, but the connection with emotional well-being is often unknown or ignored. Hopefully, this article has provided you with some insights into just how important this relationship is. As a result, you can invest the necessary resources into improving your home and making it more conducive to positive mental health.

# WHAT IS A GREEN HOME

A green home is house that's both healthy for the environment and for its occupants, with the main criteria being energy efficiency, sustainability, durability, and human health.

More and more, people want a green, environmentally efficient home. In short, a house that's both healthy for the environment and for its occupants, with the main criteria being energy efficiency, sustainability, durability, and human health.



#### **Consider Your Home's Energy Efficiency**

Energy efficient homes began catching people's attention in the 1970s, when building science was in its infancy.

Many of those original energy efficient houses failed, and the green home of today is light-years ahead of those early models. Building science is far better understood, even if applying it hasn't quite become mainstream.

For example, it's become understood that controlling air movement through a house (air sealing) is at least as important as insulation.

New building codes include airtightness standards and require testing to certify that those standards are met. And insulation standards now require that in many climates simply filling stud bays with fiberglass isn't enough to meet code. A layer of rigid insulation on the outside is often called for as well.

Still, that's only the code minimum. "Net-zero" homes, where the house imports zero energy overall, are being built throughout the country. Net-zero requires not only virtually air-tight construction and high levels of insulation, but also mechanical ventilation to ensure indoor air quality and photovoltaic (PV) solar panels to supply power.

There are several programs, such as Passive House and LEED, that can be used to design and rate high-performance homes. Insulation levels in these houses can't even be accommodated in a regular wall—it takes both inner and outer stud-walls to provide the insulation required for these high-performance homes.

Appliances, including heating, air conditioning, and water heating, contribute a great deal to a house's energy load. Choosing ones that save energy and water is a definite step in the right direction.

Energy efficiency is much easier to build into a new home than into a remodel. However, it's definitely possible to tighten up existing homes, add insulation, and add on-site PV.

#### Sustainability in the Home

For a house to be sustainably built, it must use resources in a way that can continue without depleting them.

For example, wood is a sustainable resource because when properly managed, trees grow back at a rate that's at least as fast as they're cut down. Not all forestry practices meet this standard, however. Several rating agencies, such as the Forest Stewardship Council (FSC), exist to help you determine where to buy sustainable lumber. Another consideration is embodied energy, which relates directly to embodied carbon and its global warming potential. Embodied energy is the amount of energy it takes to make a particular product, and embodied carbon is a way to measure the greenhouse gases emitted during manufacture.

It can be hard to get this part of green building right. For example, some types of foam insulation seem very green because they are excellent at keeping heat in, but their manufacture emits more greenhouse gases than they are likely to save over their lifespan.

Location plays a part in sustainability as well. Clear-cutting lots from forestland or building on a former farm clearly have an impact on the environment.

Building on a vacant lot in town has a lower impact, in obvious ways and in less obvious ones. For example, the long-term environmental effect of having to drive to a job in the city from a former forest or farm is greater than the environmental effect of walking or taking public transit to work from that former vacant city lot.



#### **Your Home's Durability Factor**

A home that doesn't require much maintenance will probably be greener than one that does. It's common sense that if a building material can be installed once and last for, say, a century, the environmental impact will be lower than if it's replaced every 20 years. Choosing durable materials that aren't susceptible to decay is usually the green thing to do.

It's not just the material, but how it's installed that makes it durable. For example, wood siding can be a great choice in terms of durability—or a poor one. For wood siding to hold up, it has to be installed correctly, with its back and cut ends coated with a quality primer/sealer.

It will also hold up better if installed over furring strips in a "rainscreen" assembly that allows it to dry. Windows are another example. You can buy the most energy efficient windows made, but if they aren't installed and flashed correctly, the house around them will rot.

Insulation itself can directly affect a home's durability. While its ability to control heat loss or gain is an unmitigated good, if it's installed with poor air sealing, moisture that's carried into the wall or ceiling by air currents can condense on cold sheathing in the winter and cause rot over time.

The reverse can happen in air-conditioned homes in hot climates, where moisture can condense on the backside of the drywall, also leading to rot or mold growth.

It's more and more important for you and your contractor to understand how insulation and air movement affect a home.

#### **Consider Human Health**



Green homes are tight homes with no more ventilation than is required, so indoor air quality (IAQ) takes on a greater importance. Sources of pollution that might have been at acceptable levels in an older, leaky house must be controlled. These sources include volatile organic compounds (VOCs) that come from carpet, paint, engineered lumber, and synthetic fabrics in furniture.

Others are combustion byproducts from a gas stove, fireplace, or improperly vented boilers, furnaces, or water heaters. Naturally occurring radon gas is its own category, as are spores arising from mold blooms.

The first step in good IAQ is to minimize pollution sources. Look for low-VOC interior finishes and furniture. Make sure that anything inside the house that emits a flame is properly vented and installed with its own combustion air. Control humidity to control mold.

New homes in radon-prone areas should include a passive ventilation system. Air testing post-construction will determine whether that system needs the addition of a vent fan.

This is more expensive to do in existing houses, but worth the money, particularly if you or anyone living in your home is a smoker. Radon in combination with tobacco smoke increases one's risk of lung cancer significantly.

A properly designed and built green home will have either a heat-recovery ventilator (HRV) or an energy-recovery ventilator (ERV).

Both exchange stale indoor air for fresh outside air, passing them through a heat exchanger that minimizes heat or air conditioning losses. ERVs also regulate moisture, which is particularly helpful in areas with variable humidity.

#### **Educate Yourself on the Impact of Green Living**

Building green is complex, yet increasingly important. Take the time to educate yourself—or be sure to hire a contractor who is schooled in building science.

## **BENEFITS OF LIVING IN A GREEN LIFESTYLE**

If everyone adopted a green lifestyle, we wouldn't be having issues like global warming or deforestation. Everyone would be doing their part to conserve the

environment. Many people pollute the environment without realizing that there is no planet B. Embracing green lifestyle influences the people around you to think about the environment.

As a parent, you should raise children who are environmentally conscious because they're the future generation. Something as simple as purchasing biodegradable containers ensures that pollution is significantly reduced. Aquatic animals are suffocating because there's too much plastic in the ocean.

A green lifestyle is also good for your health because it's always advisable to consume chemical-free foods.

You'll have to go out of your way to achieve such a lifestyle, but the outcome will be worth the effort. As a parent, you should help your child with their biology homework and use this time to teach them why environment conservation is so important.

#### **1. Reduce Environmental Pollution**

The most obvious advantage of going green is that it helps you reduce environmental pollution. You should phase out plastic within your household and adopt a more sustainable way of storing food. Plastic is the leading pollutant in the environment, and it's done too much damage as it is.

#### 2. Reduce Energy Costs

When you use solar energy instead of electricity, your energy bills are significantly offset. You can make use of solar energy during summer to power your households.

#### **3. Conserve Natural Resources**

Going green also means conserving the resources available to you. You can begin by establishing a tradition of planting trees.

Ensure you involve your whole family so that your kids grow up with these values instilled in them. Aside from solar energy, you can also use water from streams to irrigate your garden.

If you're going green, you'll have to embrace gardening. It's the best way of ensuring you and your household eat clean food.

Buying food in the market is tricky today because many use chemicals to speed up the growth of fruits and vegetables. Farming is an excellent way of managing stress without seeing a psychologist.

## 4. It's Economical

Environmentally-friendly are significantly cheaper in the market. This means that going green will save you a few bucks each time you go shopping. You can then use the money on more important things. With today's economy, you can do with cheaper products.

### 5. Lead a Healthier Life

Going green means leading a healthier life because your diet will majorly consist of fruits and vegetables.

These foods have all the nutrients you need to live longer. Even if you are a beginner in gardening, it's easy to start growing your food at home using an indoor hydroponic system. You'll avoid many lifestyle diseases that end up costing you a lot in hospital bills.

Everyone needs to feed on fruits and vegetables to keep their bodies functioning properly. Depending on junk food not only increases the calories you consume, but it also exposes you to serious health conditions.

## 6. Raise Self Aware Children

There is no way you can go green without involving your children. You need to teach your kids the importance of embracing a green lifestyle. Teaching your children about environment conservation from a tender age is an excellent way of positively impacting the next generation.

Many individuals from this generation don't pay attention to environmental conservation because they most likely won't be around when things begin to go south. But they forget that their kids and their kids' kids will be around to suffer the consequences of their actions.

#### 7. Impact change in your Community

All it takes is one person to impact change in a community. When people see how healthy you are because of your lifestyle, they'll be encouraged to follow suit. The planet needs us to stop thinking about ourselves alone. Adopting a green lifestyle helps in maintaining a cleaner environment. People will slowly learn how to conserve the environment if you show them how. As a person who has chosen a green lifestyle, use every opportunity to campaign for a cleaner planet.

## **SIMPLE WAYS TO MAKE YOUR LIFE GREENER**



Erin Rhoads' Waste Not Everyday (Hardie Grant Books, £10) points out that "the majority of the environmental burden caused by fashion happens after we take the clothing home: 82% of the energy a garment will use is in the washing and drying we do each week". Rhoads suggests spot-cleaning, and neutralising smells with a spritz of diluted vodka or lemon juice.

#### **Clean with castile**

By making cleaning products (from polish to detergent) you can reduce the amount of plastic entering your home and the level of harmful VOCs (volatile organic compounds), such as formaldehyde, that are released. "Of all the green cleaning ingredients I use, liquid castile soap is by far my favourite," writes Jen Chillingsworth in Clean Green (Quadrille, £7.55). "Originating from Spain, castile soap was traditionally made with pure olive oil, but is now more commonly produced by mixing vegetable oils such as hemp, avocado, jojoba and coconut." For a simple, multipurpose kitchen spray, add 50ml of castile soap to 800ml tap water in a spray bottle. Add a few drops of essential oils (tea tree is antibacterial). Spray and wipe with a clean cloth.

#### Go for plastic-free personal care

There is a world of waste-free sanitary protection to explore, and Chillingsworth suggests buying a reusable tampon applicator. "The reusable version fits every size of tampon, is antimicrobial and easy to insert. After use, give it a wipe, rinse and return to the storage box that fits in your handbag. Sterilise in hot water between periods."

#### Recycle as much as you can

"Most major supermarkets provide plastic recycling collection points in store for stretchy plastic (such as frozen food bags, carrier bags and bread bags) which normally can't be recycled from home," says Helen Bird, plastics expert at government waste advisory body Wrap.

TerraCycle rescues hard-to-recycle waste that is not processed by councils. It has free national recycling programmes and also sells zero-waste boxes, which you can fill with most non-hazardous, non-recyclable and non-organic waste, and return for recycling. Search its website for a scheme near you, or set one up.

#### Look after your electrical appliances

The Restart Project is a social enterprise that aims to fix our relationship with electricals and electronics. Cofounder Janet Gunter says the first step in keeping household appliances for longer is regular cleaning.

"By simply cleaning and maintaining your white goods, laptop or mobile, you will prolong its life." Restart runs a nationwide network of skill-sharing workshops as well as promoting a directory of commercial repair options in London. (See also repaircafe.org for events in your area.) "If we don't have access to spare parts," says Gunter, "these appliances will be thrown away, which has a huge carbon impact."

If your electrical appliance really is beyond repair, Rhoads suggests you "call the manufacturer or company of purchase to see if they will take back items or packaging for reuse or recycling".

Not all charity shops accept electrical items, but the homelessness charity Emmaus accepts working items. These are tested before being resold, which makes it a good place to purchase secondhand electrical goods, too.

#### Create clean air

"You can never have enough house plants," says Oliver Heath, who runs a sustainable architecture practice. Certain plants are best for certain rooms: "Mother-in-law's tongue gives off oxygen at night, which makes it best suited to the bedroom."

According to Chillingsworth, peace lilies and boston ferns thrive in rooms with high humidity and can reduce the mould spores in the air, making them ideal for bathrooms; weeping figs have been found to be the best plant for removing formaldehyde released from carpets and furniture, making them good for living areas.

#### **Change your shower head**

"Investing in an aerated shower head will make a significant difference to energy and water consumption," says Brian Horne at the Energy Saving Trust (EST). They inject air into the water stream, limiting water usage.

"A water-efficient shower head could save a four-person household £70 a year on gas for water heating, and a further £115 on water bills if they have a meter," says Horne.

#### **Opt for green energy suppliers**

There are "shades of green" when it comes to choosing an energy supplier, says Horne. The EST identified four suppliers who clearly listed the renewable sources of their energy on their websites last year: Green Energy UK, Good Energy, Ecotricity and Octopus Energy.

"But just because you're on a green tariff, it doesn't mean you should stop worrying about how much energy you use," says Horne.

#### **Practise eco-driving**

Research by the RAC Foundation has found that eco-driving leads to safer, cleaner and more affordable journeys. Regular vehicle maintenance improves fuel efficiency by as much as 10%.

Before a long journey, check tyre pressures (tyres underinflated by a quarter can cause a 2% increase in fuel consumption), remove unused roof racks and boxes, and don't overload the car (every additional 45kg reduces fuel economy by 2%).

At less than 40mph, it's more fuel-efficient to open a window than use air conditioning. Turn off engines for waits of more than one minute (5-8% of fuel is consumed while idling), and avoid sharp acceleration and heavy braking: aggressive driving can significantly raise fuel consumption.

#### **Draught-proof your home**

One of the cheapest, most effective ways to save energy and money at home is to draught-proof windows, doors, letterbox, fireplaces and loft hatches, says Dr Sarah Price, head of building physics at Enhabit, a consultancy specialising in low-energy design. Done professionally, it costs about £200, or do it yourself with products such as Gap Seal.

#### **Buy vintage furniture**

"Reusing furniture is the best thing to do, and so much more fun than buying new," says Nicola Harding, founder of interior design studio Harding and Read. "Secondhand items come with interesting stories and force you to think creatively, and give you have something far more unique."

To keep mileage down, start at your local auction houses and charity shops (the British Heart Foundation has dedicated home stores and a free collection service), followed by a targeted trawl through Freecycle and Facebook Marketplace.

#### **Optimise your white goods**

According to independent energy comparison service U Switch, the cost of running your fridge and freezer equates to about 7% of your total energy bill (they are one of the few household energy devices that are on all the time).

U Switch recommends replacing your fridge and/or freezer if it is over 10 years old. Even if it's working, the cost of a new model will be made up for in energy savings over the years. Keep your fridge at 5C or less (most are kept at about 7C, which means food will go off sooner) and ensure there is a 10cm gap behind your fridge to let heat flow away easily.

Make sure the seal is strong – if it can't hold a piece of paper when shut, it could be letting in warm air, making it work harder.

### **DIY GREEN CLEANING OF YOUR HOME**

Maintaining a stain-free home is next to impossible when you have small kids and furry friends around you. It doesn't matter how often you clean your abode, accidents happen, and spills or splatter can turn into a stubborn stain if you leave it untreated.

Whether a wine stain on your beautiful carpet or smudge marks on your walls, make sure you try proven methods to help you generate sparkling results without causing any damage to the property.

DIY cleaning is always a fun and learning journey. You can explore the internet and find great ways to remove common household stains. Before that, you need to understand the importance of deep cleaning at the end of your tenancy.

Hiring professionals for quality end of lease cleaning Canberra is good instead than doing it yourself.

If you want to tackle household stains on a daily basis, you can practice the following DIY cleaning guide:

#### **1. Coffee Stains Removal Guide**

The dark brown stubborn stain of coffee can ruin the overall look and feel of your carpets, upholstery furniture and rugs. Blotting with a clean white cloth is the best hack to remove a coffee stain. Blot the surface with your gentle hands.

Use white vinegar and warm soapy water to achieve results quickly. Avoid aggressive scrubbing or blotting as it drives the stain deeper. This won't cause damage to your carpet fibres.

#### 2. Treat Grease Stains

Believe it or not! Removing grease stains can be frustrating because it requires a lot of elbow grease. Of course, the market in Canberra is loaded with a variety of fancy products to help you remove grease, but these products contain harmful chemicals that can pollute the environment and disturb the ecosystem.

You can remove grease by covering the stain in dishwashing powder and leaving it for 10 minutes. Now, rinse it with hot water. Blot the stain with a paper towel and achieve desired outcomes. You can also use white vinegar solution or hydrogen peroxide and scrub off the stains to tackle grease.

#### 3. Quick Ink Remover

Alcohol-based hand sanitiser works wonders in removing black or blue marker ink like a magic trick. All you need to do is to cover the stain with the product, and this will reactivate the ink. Allow it to soak for 10 minutes before you wipe it off with a clean and soft rag.

## 4. Get Rid Of Red Wine Stains

If you accidentally spill red wine on a carpet, upholstery, bed linen, or upholstery furniture, spray a mixture of water and dishwashing soap and let it sit for 10-20 minutes. Rub the stain with a soft-bristled brush, and then use a white vinegar solution and repeat the rubbing process.

To remove white wine stains, remove them with cold water and dishwashing liquid and wash the area properly.

If you are at the end of your tenancy, hire a reliable end of lease cleaning Canberra and get your full bond back.

#### **5. Treating Mud Stains**

Removing muddy stains can be challenging, especially if you don't know the hack. It can make your carpet and floors dirty. For synthetic fibre rugs, let the stain wet stains dry and vacuum up to get rid of dirt.

Combine  $\frac{1}{2}$  teaspoon of dishwashing detergent into  $1 \frac{1}{2}$  cups of warm water. Now, dab onto the affected area with a microfiber cloth. Let it sit for 15 minutes, and soak up the extra solution using a dry cloth. Repeat the process with warm water.

You can sprinkle a generous amount of baking soda and leave it for 1 hour before you vacuum it thoroughly to get rid of excess residue. Make sure you get rid of mud stains and other grime because a dirty house can affect your health.

#### 6. Blood Stains

When removing blood stains from fabrics and other clothing items never apply hot water. Use cold water before laundering or soak in cold water for dry stains.

You can use liquid dishwashing detergent and 2 cups of cold water to remove blood stains from carpets and rugs. Soak the sponge in the solution and clean the surface.

#### 7. Pet Stains

You can use white vinegar and a soapy water solution to eliminate pet messes from carpets and rugs. Blot the stains with a paper towel and rags. After that, apply baking soda to absorb the bad smell and vacuum the surface for sparkling results.

### 8. Hard Water Stains

To treat tough water stains from chrome faucets, apply a white vinegar solution and scrub with your gentle hands. You can also use baking soda to achieve sparkling results. Scrub using a toothbrush and rinse with plain water. You can use other natural cleaning agent to remove hard water stains from windows as well.

# CONCLUSION

Making your home safer and greener is easier than you think it was. There are different aspects to what this could mean. You can choose to employ some or all of these techniques to make your house more efficient and greener. Not only will this help you save money in the long term, many of the tips make your lifestyle more comfortable.

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