

MOLD IS A SYMPTOM



Why the biology of your home might be the missing key to your health

[HOMEBIOTIC.COM](https://homebiotic.com)

MICROBIOMES 101



You've probably heard that your gut is home to trillions of bacteria, some of which are friendly and others that are not. Together, they are called your gut microbiome.

If your gut microbiome is unbalanced, either from exposure to a harmful germ or by taking antibiotics, you'll get sick. This is why many people take digestive probiotic supplements to maintain a healthy & balanced gut.

Did you know... Your home has a microbiome too!

Unlike our bodies, however, your home has no innate ability to restore its own biome when it's disrupted. Using antiseptic cleaning products (you know, the ones that boast the ability to kill 99.99% of germs) has the same effect on your home's biome that a course of strong antibiotics has on your gut biome. It kills nearly everything, but leaves the door open for opportunistic microbes, like mold, to return with a vengeance. Except, this time, there are no friendly microbes remaining to provide a counterbalance, allowing the mold to grow unimpeded.

This understanding revealed a simple but profound realization:

Mold growth is a *symptom* of an unbalanced home biome.

When the natural balance is lost, it doesn't take long for effects to become noticeable.

Maybe it's a subtle musty odor in your basement. Maybe it's more obvious - disgusting black mold in your shower. Or maybe, it's a cough that lingers longer than you think it should, or a headache that keeps coming back. In any case, your home biome has become unbalanced.

Don't worry, you can fix it!

Want to learn more? Keep reading and we'll take a look at what exactly a home biome is.

THE IMPORTANCE OF A HEALTHY BIOME



We need the biome in both our guts and our homes to be healthy and diverse at the same time. As living organisms, we're connected to our living environments, so if one biome is unbalanced, chances are the other is too.

By understanding the similarities between the gut and home biome, we can make better decisions for how to improve and maintain them.

Many of us may not understand that the home biome is similar to the one in our gut. Therefore, people may not realize how to create balance in our home biome.

Let's define both the gut and home biomes and look at their similarities. Then we can discuss the importance of both biomes for the health of our bodies and living environments.

WHAT IS THE GUT BIOME?

Gut microbes impact the digestive system, our immune system, our neurochemicals, and many other systems in our body. Gut microbes are needed to help digest and absorb nutrients from the food we eat. This helps sustain the immune system, which is also connected to the nerves, brain, blood vessels, and other vital organs.

Research shows that a gut biome that lacks diverse and healthy bacteria may be a root cause of health problems like diabetes, obesity, cancer, inflammatory bowel disease, and autoimmune issues.

The goal is to create an environment in our guts where diverse microbes can grow in healthy amounts. This healthy diversity not only contributes to the proper functioning of our bodies, but it prevents unhealthy microbes from growing in large numbers.

When it comes to the health of our guts, we need lots of healthy and diverse microbes that live well together and in balance.

WHAT IS THE HOME BIOME?

Like the gut biome, our homes also have a biome that is unique and essential in maintaining the health of our living environment.

Our homes get colonized with a variety of diverse microbes, some of which are required to maintain balance and health. If our home biome is lacking in microbes, such as often happens when we overclean and create a sterile environment, then problems can arise.

Also, if we clear out a few key species of microbes that help maintain balance, we may see an overgrowth of other more harmful species. For example, microbes like mold, yeast, and salmonella can flourish in a home environment that lacks sufficient diverse, healthy microbes. These kinds of microbes are aggressive and opportunistic, and can populate a new environment more rapidly than the benign species they are replacing.

So, we also need to consider ways to enhance the growth of healthy bacteria, the same as we would do for our guts.

Just as we take probiotics for our gut health, we can also use probiotics for our home. We wouldn't want a sterile gut, we also want to avoid a sterile home environment. Environmental Probiotics, like [Homebiotic](#), contain soil-based microbes that support & maintain a healthy home biome.

HOW ARE THE GUT AND HOME BIOME RELATED?

Since we are biodiverse beings that are dependent on our environments, it makes sense that our gut and home biome co-exist. Of course, the microbial population in our guts and our homes will be somewhat different. But, studies show that homes are colonized by microbes found in humans and pets that live in the house. Every time

we cough, sneeze, handle raw meat in the kitchen, or flush a toilet... we are distributing human-centric microbes to our home surroundings.

Homes surrounded by diverse soil-based microbes such as farms or homes with a lot of green space are known to create healthier immune systems in children. This suggests that a direct connection to our environment is what actually creates robust body systems.

WHY IS THIS IMPORTANT TO KNOW?

The more we understand the connection between our gut and home biome, the more we know how to maintain health in both areas. As living beings, we are symbiotically connected to our environments.

As well as the importance of having diverse microbes in our guts and in our homes, the more we will take care not to create an imbalance in either. As we try to enhance our physical health to ensure the diversity of microbes in our gut, we can also do the same thing for our homes. It just makes sense to look after both so we can improve our overall health. In recent decades, mold illness in the form of allergies, asthma, and other related health issues is on the rise. So we know that our home biome has an effect on our health and well-being.

A NEW LOOK AT HOW AND WHY MOLD GROWS

WWW.HOMEBIOTIC.COM

Mold needs space to grow without too many other microbes to compete with so they can take over an area and thrive. If there is nothing present to stop it, mold rapidly grows when it has sufficient moisture, whether it comes from a water leak or condensation. It also needs food to grow, so mold can often be found wherever there is moisture and fibrous material like paper, drywall, etc. It also eats other organic material like dust, food, and other small carbon-containing matter. However, *if competition from other microbes exists, mold has a much harder time growing and often can't gain a foothold beyond a few small spots.*

CAN YOU CAUSE MOLD BY OVER CLEANING?



A common misconception is that keeping the homes squeaky clean will protect us from harmful pathogens such as bacteria and fungus. While it's true that chemicals can kill off harmful bacteria -- such as salmonella, e-coli, and staphylococcus aureus -- these chemicals also kill the beneficial bacteria too.

In addition, by only killing off the majority (but not all), this can contribute to the formation of antibiotic resistant bacteria, another threat to our health.

In the past decade, more discussion has taken place around microbial resistance and destruction of the helpful human and environmental biomes due to our cleaning practices.

With the rise of dangerous and resistant bacteria, many of us are feeling confused. Do we want to decrease our cleaning frequency? Should we switch to other products that protect the microbial balance rather than killing it off?

A [2019 study](#) done at the University of Oklahoma revealed that urban environments have much higher quantities of harmful fungal microbes, such as aspergillus and candida compared to rural environments. Conversely, helpful bacteria were found in much lower numbers in these urban homes compared to rural settings. Further research has shown that removing the natural healthy competition of friendly bacteria has a direct impact on the ability for mold to grow in an environment.

While we strive to decrease harmful pathogens in our home environments, we may be doing more harm than good by wiping out the balance between the microbes. This can have a direct effect on physical health and well-being.

RECONSIDERING HOW WE CLEAN

When it comes to creating a healthy home biome, choosing natural cleaners over harsh chemical cleaners is an important place to start. But we also need to reconsider our ideas and biases around living with microbes in our homes. We now understand that disrupting the balance of microbes has adverse effects on overall microbial diversity in our homes, and on our health.

SOCIAL ISOLATION IMPACTS ON MOLD GROWTH



Many of us are living in a new reality due to COVID-19. School, work, and life in general has been disrupted and changed. For the first time, people around the globe are spending far more, if not most, of their time at home.

And, as we spend more time at home, we increase the chances of mold growth.

UNEXPECTED SIDE-EFFECTS OF HOME ISOLATION

If you think about it, more time at home means there will be more people showering, cleaning, eating, and cooking. Before, many of us would be spending our days at work, school, or other activities outside of the home. Now, we're all doing these things together under one roof. Also, we are trying to prevent illness, so we're cleaning more than usual, often keeping windows and doors shut, and washing our hands more. This can result in less air circulation, more moisture, and spaces void of helpful bacteria.

All of these elements provide the perfect conditions for mold to grow.

WHY DO THESE ELEMENTS CAUSE MOLD TO GROW?

WWW.HOMEBIOTIC.COM

Mold likes to eat cellulose-containing building materials such as paper, fiber, and drywall. All of these products are widely available in modern homes. However, mold needs moisture and free space to grow. So, once we begin adding more moisture to our homes and removing helpful bacteria through over-cleaning, mold can grow unchecked.

To avoid illness, we're washing our hands and cleaning our homes more frequently, and thus adding more moisture. We may also be using more chemicals to clean and wash our hands with. These chemicals kill the bacteria that provide a balance for our homes, and prevent the causes of musty odors. All of these conditions create a much higher risk of mold growth. And with increased mold, comes new health problems that we may not have thought about before.

HOW MOLD AFFECTS OUR HEALTH

Most people know that mold is highly correlated with allergies and asthma. Household mold causes an increase in asthma and allergy symptoms, which also increases the risk of secondary infections. So even though we're trying to prevent illness, we may be inadvertently increasing our susceptibility to other diseases.

HOW TO MAINTAIN YOUR HOME BIOME WHILE STAYING HOME

The good news is that there's a lot we can do to keep ourselves and our homes healthy during this new reality. Here are some essential tips to keep in mind while we are home more than we previously used to be:

- **Maintain airflow through the house.**

Fresh air is always good to have in your home, so open the windows as much as you're able to. Be sure to turn on the vent fans in the kitchen and bathroom during use. Portable fans placed at strategic points in the house can also really help keep air flowing through the house.

- **Prevent humidity or water damage.**

When you're cleaning, be careful how much water you're using. You likely don't need to use large amounts to get the job done. And when you're finished cleaning, make sure you dry all the surfaces with a cloth. Be sure that the bathroom is thoroughly dried out after showers and hygiene practices. Leave the bathroom fan on or wipe the surfaces until they're dry (and then properly dry the towel or squeegee!).

Check all areas of the home for potential water damage and make any necessary repairs. Adding a portable dehumidifier where needed can also make a significant improvement against dampness.

- **Be conscious of your cleaning practices.**

There may be an urge to use bleach and water to clean the bathrooms and kitchens every day, but this is usually not necessary. Now, if you have someone who is ill in your home, by all means use disinfectant to keep everyone safe. However, if no one is ill and everyone is taking proper precautions, there's no need to go overboard with bleach or other harsh chemicals. The more we clean away all the natural microbes, the more mold sees those empty spaces as free real-estate to grow and reproduce. This is because many microbial species compete with mold, which keeps their numbers low. But if there are no bacteria at all, then mold has a much better chance of taking up space. Instead, opt for natural cleaners like vinegar or essential oils.

Rebalance Your Home Biome

Mold has a much harder time growing when other microbes are competing for space and food. Homebiotic's probiotic spray was created to help restore natural levels of soil-based microbes to support a healthy home biome. Apply after a surface is cleaned, and it creates a probiotic barrier that protects the surface and helps keep it cleaner at a microscopic level. In this way, it helps prevent the source of musty odors, regardless of what is causing them.

THE NEW SCIENCE OF HOME BIOMES



We see our homes as safe sanctuaries for living, relaxing, and raising our families. And as such, we've developed codes of conduct around keeping our homes clean, tidy, and void of anything unsafe or unsanitary.

However, in recent years we've seen a rise in new health issues, which has sparked questions around the safety and health of our homes. We realize that our closed-in and over-sanitized living spaces no longer include a healthy relationship with our outdoor environment.

More importantly, researchers and experts are beginning to see that the lack of biodiversity inside our homes is problematic.

This has prompted some crucial discussions and research about what's found (and not found) in our homes. Indeed, this may be the start of a new era of modern life where we change our ideas about what safe and healthy actually means for our home environments.

Unbalanced homes make us sick. Rebalance your homebiome to get rid of the sources of musty odors that negatively impact our health.

Homebiotic makes it simple and easy to restore a healthy, balanced microbiome to your home. After cleaning an area as usual, with a non-

toxic cleanser, simply spray a light mist of Homebiotic across the area. Apply once daily for the first week to help establish the beneficial microbes, and then re-apply weekly or as needed after that.



LET'S GET SOCIAL!



@homebiotic



@homebiotic



@homebiotic