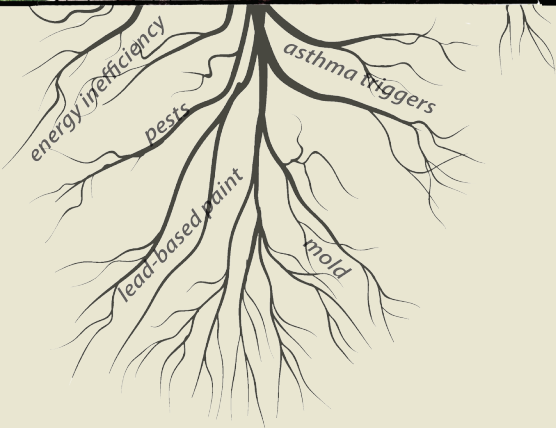




Green & Healthy Homes Initiative® | Salt Lake

# ROOTS OF THE PROBLEM

# ROOTS OF THE SOLUTION





## We want to form a partnership with you to help you make your home as healthy as possible.

Welcome to Green & Healthy Homes Initiative Salt Lake (GHHI Salt Lake). **GHHI Salt Lake helps families with health concerns through home remediation.** The purpose of this booklet is to give to you a tool to assess the healthiness of your home.

Your case manager will work with you to evaluate your home and help you develop a plan of action tailored to your medical needs.

### **GHHI Salt Lake is a partnership that includes the efforts of:**

University of Utah Pediatrics

Intermountain Health Care

State of Utah Health Department

University of Utah Hospital

Salt Lake Valley Habitat for Humanity

Community Development Corporation of Utah

Assist Inc.

NeighborWorks Salt Lake

Comunidas Unidas

Utah Society for Environmental Education

Salt Lake City

West Valley City

Community Action Program Weatherization

Utah Clean Energy

# ROOTS OF THE PROBLEM

Dandelions. Not really a bad plant. But unchecked they can rob your lawn of nutrients and water and health. So how do you avoid them?

Most landscapers agree the best way to avoid dandelions is to start right. You clear your ground. You bring in topsoil that is weed free. You choose great sod and you care for it with healthy amounts of water, organic fertilizers and sunlight. You start with good ground and seed and then you put a sustainable maintenance plan into action.

But what if you already have dandelions? What if you have dandelions all over your yard and you don't know what to do about it? Basically the dandelion is so effective because it has deep roots. So you are left with a few options—you can ignore them, mow them, or you can go after the roots with digging or chemical treatments. Most people will agree that dealing with the roots is the only way to really get rid of dandelions.

Now let's compare that to medical problems aggravated by problem areas in a home. When you have chronic health problem it's like having a lawn full of dandelions, you can't just treat the symptoms. You need a comprehensive approach to stay well, to keep out of hospital emergency rooms, and get back to your life.

There is no denying that environment plays a part in our overall health. A healthier home isn't the cure necessarily for medical problems, but it can certainly be a factor. We have seen homeowners who have changed their homes and changed their lives. Attached is a newsletter about the Fulton Family that received assistance through GHFI Salt Lake.

Like the dandelion we can treat the result of the problem or we can use coordinated effort to get at the root of the problem. We can mow the lawn or change the lawn.

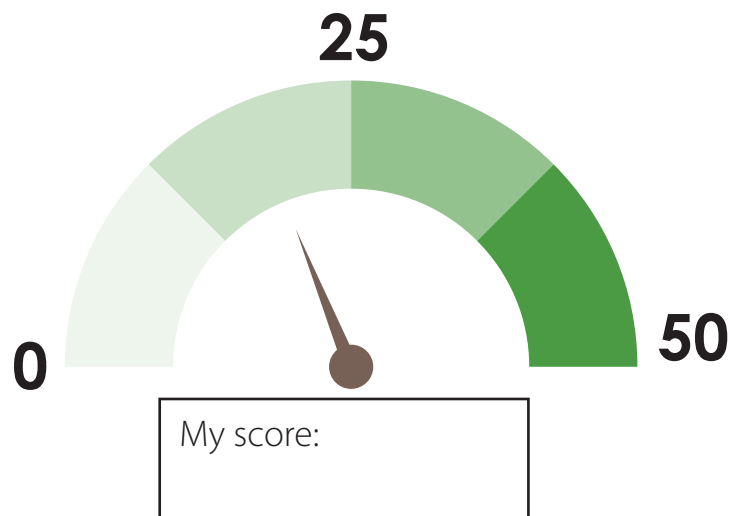


Change is difficult. All homeowners have schedules, routines and a need for privacy. But when there are radical problems, solutions often involve acute change. We are not asking you to provide us with information that detracts from your privacy. But we do want to really understand your unique needs as a homeowner. We want to be part of coordinated effort to a complex problem. Give us a chance to make what your family's health sustainable. Help us create a better future for you, free of illness. We can get at the root of this problem together and make a brighter, greener tomorrow.

Like weeds in grass, if we want to cure medical problems it's not enough just to deal with the symptoms, we have to go deeper. We have to look at the possible roots of the problem. Once we know what these trouble areas are, we then can look for the root of the solution. Many medical problems can be impacted for the better by making simple changes to our living environment.

## Healthy Homes Challenge

Please work with your case worker to fill out the following form. Identify where you are and how you might like to improve the safety, efficiency and comfort of your home.



Far too many American residences don't have all the elements of a healthy home. A healthy home is dry, clean, well-ventilated, energy-efficient, free from pests and contaminants, well maintained and safe.

Unhealthy homes that have mold, pests, and lead-based paint can have significant health impacts on residents and can cause lead poisoning or asthma attacks. Homes without proper heating or poor insulation could even lead to hypothermia or frostbite. Homes that are not energy-efficient make it even more difficult for families that are struggling financially to cover the basic expenses such as rent or mortgage payments, and ongoing property maintenance.

Some efforts to address the housing problems outlined above can actually create new issues. For example, weather sealing may help to keep energy costs down – but if the quality of the air that is sealed inside is poor, the health of the residents will suffer.

A comprehensive approach is needed to overcome these obstacles. A Green & Healthy Homes intervention considers multiple roots of the problem, and tackles them all at the same time.



## KEEP IT DRY

**+1**

Major leaks and mold.

**+2**

A few leaks & mold.

**+3**

One leak, maybe mold?

**+4**

One leak.

**+5**

No leaks!

*Issues could include water present in the basement, roof leakage, plumbing leaks and mold present in the home.*

My score:



## KEEP IT CLEAN

**+1**

Major clutter and dust.

**+2**

Whole house needs cleaning.

**+3**

Several cleaning issues.

**+4**

Usually clutter-free.

**+5**

Dust & clutter free!

*Cleanliness issues could include stacked clutter, uncleanable surfaces, animal hair, dirt, grease or other unwanted build up.*

My score:



## KEEP IT SAFE

**+1**

Hazards, poison no detectors.

**+2**

One hazard, no detectors.

**+3**

Two safety issues.

**+4**

One safety issue.

**+5**

No safety hazards!

*Safety hazards could include tripping hazards, chemicals or cleaners improperly stored, poisons in reach of children, a lack of fire extinguishers and the absence of smoke and carbon monoxide detectors.*

My score:



## KEEP IT VENTILATED

**+1**

No ventilation in bathroom AND kitchen, additional air issues.

**+2**

No ventilation in bathroom OR kitchen.

**+3**

Two or more indoor air issues.

**+4**

One indoor air issue.

**+5**

Good ventilation and no air issues!

*Ventilation and air issues could include absence of ventilation for kitchen and bathroom areas, mold due to moisture, and other air pollutants such as radon gas or carbon monoxide.*

My score:



## KEEP IT PEST FREE

**+1**

Pests present, signs visible.

**+2**

Some sign of pests.

**+3**

Intermittent signs of pests.

**+4**

Limited signs of pests.

**+5**

No pests!

*Issues could include food or water left out overnight, entry points into the home that could allow pest entry, bedding and stuffed animals washed irregularly.*

My score:



**+1**

Cracked paint, smoking in the home.

**+2**

Three or more contaminants.

**+3**

Two contaminant issues.

**+4**

One contaminant issue.

**+5**

Contaminant free home!

*Contaminant issues could include cracked or peeling paint, radon gas, asbestos, carbon monoxide and smoking in or near the home.*

My score:



**+1**

Four or more issues, \$10k+ in repairs needed.

**+2**

Three issues, \$7.5k in repairs needed.

**+3**

Two issues, \$5k in repairs needed.

**+4**

One issue, \$2k in repairs needed.

**+5**

No major repairs needed!

*Maintenance issues could include roof repairs, plumbing, safety and access issues.*

My score:



**+1**

Very high energy costs, uncomfortably cold or hot.

**+2**

High energy costs, air leaks.

**+3**

In need of insulation and weatherization.

**+4**

Average costs, in need of updates.

**+5**

Low energy costs!

*Energy efficiency improvements could include updating lighting, heating and cooling systems, weatherization, improved insulation, and efficient window upgrades.*

My score:



**+1**

Many asthma triggers present.

**+2**

Three or more asthma triggers present.

**+3**

Two asthma triggers present.

**+4**

One asthma triggers present.

**+5**

No asthma triggers present!

*Asthma triggers include: mold, dust mites in bedding, older carpet, stuffed animals, furniture, smoke, pests, indoor pets, nitrogen dioxide from fuel burning, chemical irritants such as cleaners, paints, pesticides, cosmetics and air fresheners.*

My score:



**+1**

Do not have a plan in place.

**+2**

Have made a plan.

**+3**

One or more action items in progress.

**+4**

Two or more action items in progress.

**+5**

Following action plan 100%

My score:

**Having completed the review and score, what are your greatest concerns?**


**Name at least two issues, or problem areas you would like help with:**

1.
2.

If you have or a member of your family has asthma, is it under control or do you need better medical treatment or help?

Do you have standing water, mold, or mildew anywhere in your home?

What asthma triggers do you know of in your home?

Do you have loose paint chips in your home?

What allergies do you have?

Do you have areas that you lose heat or cooling?

Do you notice a difference in your health when you enter your home or rooms of your home?

Is your home accessible for those who may live there with a handicap?

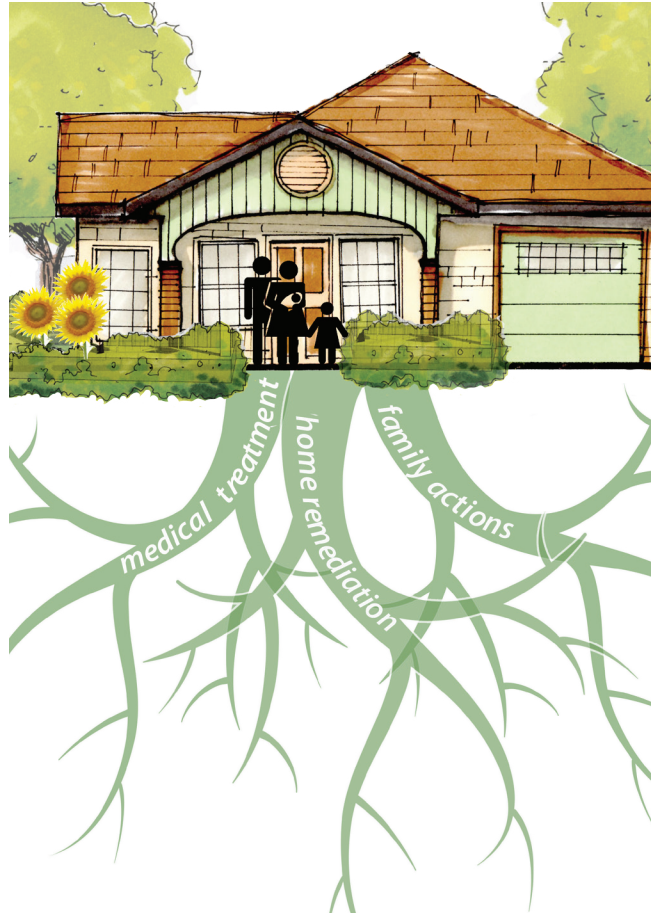


# ROOTS OF THE SOLUTION

A healthy root system is critical to the health of the plant. If a plant system is damaged or limited in any way the growth and health of the plant is limited.

The same applies to the health of the home and the family. With a strong root system, the health of the home will be sustainable for a long period. The root of the solution can come from us working together to root out the problems and establish long term health and safety solutions.

**From the review of the roots of the problem, and from your score on the matrix, what are your highest priorities?**



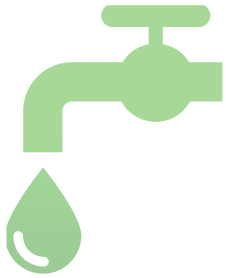
Medical Treatment	
Family Actions	
Home Remediation	

# 8

## ELEMENTS OF A GREEN & HEALTHY HOME

A green and healthy home supports the well-being of the people living there in many different ways. Ensure your home is clean, healthy and safe home by following GHHI's 8 elements of a green and healthy home.

### A GREEN AND HEALTHY HOME IS:



#### DRY

- Always clean spills and floods within one day
- Check the plumbing in your home for leaks
- Prevent rain water from entering your home by making sure drainage around the outside is flowing away from the house
- Prevent water from entering your home by repairing roof leaks before they get too big



#### CLEAN

- Empty trash regularly
- Make sure you have a place to keep dirty laundry, so it's not on the floor
- Reduce clutter
- Use wet-cleaning instead of dry dusting



#### SAFE

- Always wipe spills away quickly
- Install smoke and carbon monoxide detectors and keep fire extinguishers on hand, especially in the kitchen
- Keep children away from windows, as a screen is not strong enough to prevent a fall
- Secure loose rugs and keep children's play areas free from hard or sharp surfaces
- Store and properly label food



#### VENTILATED

- Try to keep air moving in your home with fans or by opening windows
- Ventilate bathrooms and kitchens

#### PEST FREE

- If needed, use sticky-traps and baits in closed containers
- Seal cracks and openings throughout the home so pests can't get in
- Store food in pest-resistant containers



#### CONTAMINANT FREE

- Keep floors and window areas clean using a wetcleaning approach
- Have your home tested for radon, a naturally occurring dangerous gas that enters homes through soil, crawlspaces, and foundation cracks
- Reduce lead-related hazards in homes built before 1978 by having deteriorated paint removed or made safe



#### MAINTAINED

- Inspect, clean and repair your home routinely
- Take care of minor repairs and problems before they become large



#### ENERGY EFFICIENT

- Caulk windows and door frames to ensure that they are airtight
- Change the filter on your furnace regularly
- Install a programmable thermostat or turn your heat down (and air conditioning up) when you are not at home
- Seal your heating and cooling ducts
- Use compact florescent bulbs (CFL) in all of your lamps and light fixtures



# IS YOUR HOME MAKING YOU SICK?

## Buried by medical bills and a decaying house, the Fulton Family turns to Green & Healthy Homes

Crystal Fulton will never forget the day she walked into the offices of the Green & Healthy Homes Initiative Salt Lake (GHHI Salt Lake) with an application for home assistance. She had just discovered that her home was filled with black mold and termites. Her two-year-old son was suffering from pneumonia. She and both her sons were on breathing machines and expensive medications for respiratory problems. Her husband was working out of town. And they were buried by all their medical and home repair bills. She was at the end of a very frayed rope.

When the Fultons initially saw the home they now live in, it was hard to get a good look at it. It was midnight and the fixtures had been taken out by the last owners. The home was in foreclosure. But even with flashlights, Crystal and her husband TJ thought they had found a good home in a perfect neighborhood. The next morning they put a bid on the home, contingent on inspection. Forty-seven other people bid on the home that same day. The bank accepted their bid and the home passed three separate inspections. It seemed like things were starting to look up for them.

That is until they actually moved in. They turned the water on and the pressure value was not installed properly and because of that every valve in the house blew apart. A year later they noticed a crack in the sewage line going into the concrete. Sewage was leaking into their basement. Soon after they had repaired this problem, Crystal came out of the shower to discover the tile in the master bath was so soggy she almost fell through the floor. They ripped out the entire bathroom, replacing everything but the toilet.

TJ was transferred out of town for work and that left Crystal at home taking care of her increasingly sick children. The children were missing school, a lot of it. Crystal and the boys were taking steroids, using inhalers and a breathing machine and anti fungal and anti-nausea medicine to combat respiratory

problems. Her two-year-old was so sick his hair was falling out. One day Crystal came home and found her basement flooded. Even when she turned off the water, the flooding continued.



*The Fulton Family*

Desperate to find the source she tore into the sheet rock. What she found was devastating. The walls were filled with water and dead termites. She cleaned the mess up the best she could but within four days she had black mold growing on the concrete floor. She pulled down more sheet rock and found two layers of sheet rock where more mold and live termites had been walled up. Studs crumbled off walls. Crystal says, "It was like a horror movie."

When she called her insurance agent he said that they wouldn't cover a problem of this magnitude.

A restoration company referred her to GHHI Salt Lake. After an assessment, GHHI Salt Lake filled three giant dumpsters with debris from Fulton's basement. The black mold and termites were removed, rain gutters, new widow wells, and smoke alarms were installed. The basement was re insulated; the bathroom's plumbing was replaced, along with the flooring, the air ducts, and the dangerous electrical features. Finally, GHHI put in a air filtration system that Crystal enthusiastically calls "a god-send."

Since the repair six months ago the Fulton children have only missed three days of school. They haven't been to the doctor's office once in that time. Crystal says "It brings tears of joy to my eyes. It has made such a difference. This program has changed the quality of our lives. Green & Healthy Homes Initiative Salt Lake is our miracle!"

# IMPROVE AIR QUALITY IN EVERY ROOM

**Asthma is a serious, sometimes life-threatening respiratory disease that affects the quality of life for millions of Americans. Environmental asthma triggers are found around the home and can be eliminated with simple steps.**

*Don't allow smoking in your home or car.  
Dust and clean your home regularly.  
Clean up mold and fix water leaks.  
Wash sheets and blankets weekly in hot water.  
Use allergen-proof mattress and pillow covers.  
Keep pets out of the bedroom and off soft furniture.  
Control pests—close up cracks and crevices and seal leaks; don't leave food out.*

**Mold can lead to allergic reactions, asthma, and other respiratory ailments.**

*Mold can grow anywhere there is moisture in a house.  
The key to mold is moisture control  
If mold is a problem in your home, you should clean up the mold promptly and fix the water problem.  
It is important to dry water-damaged areas and items within 24-48 hours to prevent mold growth*

**Radon is the second leading cause of lung cancer.**

*Radon gas enters your home through cracks and openings in floors and walls in contact with the ground.  
Test your home with a do-it-yourself radon kit. If the test result indicates you should fix, call a qualified radon mitigation specialist.  
Ask your builder about including radon-reducing features in your new home at the time of construction.*

**Carbon monoxide causes headaches, dizziness, disorientation, nausea and fatigue, and high levels can be fatal.**

*Nitrogen dioxide causes eyes, nose, and throat irritation, impairs lung function, and increases respiratory infections.  
Sources include: indoor use of furnaces, gas stoves, unvented kerosene, and gas space heaters, leaking chimneys, and tobacco products.  
Ventilate rooms where fuel burning appliances are used.  
Use appliances that vent to the outside whenever possible.  
Ensure that all fuel-burning appliances are properly installed, used, adjusted, and maintained.*

**Children are especially sensitive to secondhand smoke, which can trigger asthma and other respiratory illnesses. Secondhand smoke comes from burning tobacco products such as cigarettes, pipe, and cigars.**

*To help protect children from secondhand smoke, do not smoke or allow others to smoke inside your home or car.*

**VOCs cause eye, nose, and throat irritation, headaches, nausea, and can damage the liver, kidney, and central nervous system.**

*Volatile organic compounds (VOCs) are chemicals that evaporate at room temperature. VOCs are emitted by a wide array of products used in homes including paints and lacquers, paint strippers, varnishes, cleaning supplies, air fresheners, pesticides, building materials, and furnishings. VOCs are released from products into the home both during use and while stored.  
Read and follow all directions and warnings on common household products.  
Make sure there is plenty of fresh air and ventilation (e.g. opening windows and using extra fans) when painting, remodeling, or using other products that may release VOCs.  
Never mix products, such as household cleaners, unless directed to do so on the label.  
Store household products that contain chemicals according to manufacturers instructions.  
Keep all products away from children!*

[epa.gov/iaq](http://epa.gov/iaq)





Green & Healthy Homes  
Initiative® | **Salt Lake**



[healthychild.org](http://healthychild.org)  
[greenandhealthyhomes.org](http://greenandhealthyhomes.org)