



**“Healthy Living is
Not a Luxury it is a
Necessity”**

AT THE ROOT OF A SAFE & HEALTHY HOME

Major Considerations For Urban Living, Rural
And Suburban Home Owners, New Home Buyers
And New Home Builders **Powered by**  **the MAHFOOD
group**
LLC




The Big Picture

The Healthy Roots Project®

- Launched to Promote Awareness of Potential Health Risks in the Home:
 - Homes are built on former agricultural and industrial properties
 - Pesticides and industrial wastes may remain in soils for years
 - Soil-borne contaminants can be tracked into the home
 - Commercial products contain chemicals that can be released to indoor air
 - Outdoor air quality can impact indoor air quality
 - Children, elderly family members and pets are at risk
- The Healthy Roots Project® is Focused on Implementing “The Healthy Homes Strategic Plan” Presented by the U.S. Department of Housing and Urban Development (HUD 2009)
- You CAN Gain Confidence in Your Home Environment:
 - Knowledge is power and assessing soil, air and product use will inform homeowners about potential household risks that may exist

HEALTHYROOTSPROJECT.COM

The Healthy Roots Project®

 The Healthy Roots Project® is a Natural Extension of Many Healthy Living Initiatives and is Involved in Education and Awareness:

- The homeowner should recognize that chemical contamination and exposures are NOT limited to hazardous waste sites
- The science of chemical hazards in the home environment continues to develop and includes new protocols for evaluating human health to soil and air
- The science of chemical toxicity continues to mature and California has taken the lead in evaluating toxic effects of contaminants
- New technologies are allowing the detection of many environmental chemicals not found in previous years

HEALTHYROOTSPROJECT.COM

The Healthy Roots Project®

- The Mahfood Group LLC® Scientists and Engineers Work Extensively with Federal, State and Local Agencies and Industry to Conduct Public Health Evaluations:
 - Our Expertise in evaluating exposure to chemicals in the residential environment assists homeowners in reducing potential health risks
 - We have a thorough understanding of local, state and federal programs
 - Our Experience leads to cost effective, simple solutions for “Healthy Living”

HEALTHYROOTSPROJECT.COM



The Air We Breathe



HEALTHYROOTSPROJECT.COM

Risk Assessment is the Key

- Green design and energy conservation **INCREASES** the potential for indoor air contamination
- Smoking, vehicle traffic, chemical storage and off-gassing of building materials can cause unacceptable human health risks
- Nearby industry, gas stations, landfills, power plants and dry cleaners may also adversely affect indoor air quality
- Contaminants can be concentrated in indoor air

Risk Assessment is the Key

 The Healthy Roots Project is Based on Nearly 30 Years of Environmental Public Health Practice:

- The Mahfood Group LLC[®] partners with AirToxics, a nationally recognized analytical solutions laboratory
- Together, The Mahfood Group LLC[®] and AirToxics provide innovative approaches to measuring air quality and subsequent health risks
- Online products make air quality data and home solutions available to consumers
- Often, simple inventories of chemical cleaners, pesticides and personal care products are sufficient to identify chemical sources and with simple remedies dramatically improve indoor air quality
- Solutions are also available for CFL bulbs and mercury cleanups

HEALTHYROOTSPROJECT.COM



The Land We Live On



HEALTHYROOTSPROJECT.COM

Soil Quality is Critical for Green Living

- Soil Contamination is Surprisingly Mobile:
 - Chemical contaminants can infiltrate into the home
 - Pets and children may track contaminated soil into the home
 - Soils around the home may contain high levels of lead, especially if the home was built before 1978
 - Similarly, wood-treated products like decking purchased before 2004 may contain high levels of chromium and arsenic
 - Fill used for landscaping may contain a myriad of chemical contaminants

- Home Gardening Can Be Affected by Soil Contamination

- Children's Play Areas May Contain High Levels of Chemical Contaminants Which May Potentially Affect The Child's Health



The Food We Eat



HEALTHYROOTSPROJECT.COM

Home Grown Vegetables and Food Safety

- Many Homeowners Are Now Interested in Growing Vegetables in Their Yards
- It is Important for the Homeowner to Have a Solid Understanding of How Chemical Contaminants in Their Soil Can Affect Their Health From Home Grown Vegetables
- In Order to Achieve the Concept of “Safe Food” in Your Home Garden, Several Criteria Should Be Considered:
 - Test your soil and evaluate the chemicals present
 - Raised beds can be used for planting which do not disturb the deep or contaminated soil
 - Acceptable pesticides and herbicides can be used to maintain your residential planting beds so that your rooted plants do not come into contact with unhealthy chemicals in the soil
 - Many landscaping features assist the homeowner to be able to garden in safe soil



At the Core of Healthy Living



HEALTHYROOTSPROJECT.COM