

Mold, IAQ, Renting...We've Opened Up the Mailbag!

Andy: Help, I think I have an indoor air quality problem. How do you deal with mold in new construction? And, what do I do if I'm renting? Those items and more on Non Toxic Environments, episode 118.

Welcome back to Non Toxic Environments, everybody, this is Andy Pace. Thank you so much for listening to another podcast. First off, right off the bat, I'd like to thank everybody who has been leaving reviews and ratings on iTunes and other podcast websites. We really appreciate that. We absolutely love doing this podcast, and I get the feeling that a lot of folks are enjoying listening to it as well, so thank you so much.

Just a quick shout-out to the website at the beginning of the show today, degreeofgreen.com. On the front page top left you'll see a little microphone. It's called a SpeakPipe. Please leave us a message. Leave us a question. Today, in particular, we're answering a bunch of questions from the mailbag, and you never know, your question could get featured on the podcast, and if that happens, Jay and I have these little gifts that we can send out to thank you. So, I really, really appreciate all that feedback.

First off, let's talk about the first topic we are dealing with, which is, indoor air quality issues, and how do you know you have an indoor air quality problem in the home? And it's obvious, besides the scratchy throat and itchy eyes and so forth, but a lot of folks will actually complain about that telltale sign of formaldehyde, which is kind of this sweet smell, sweet sensation in the home. Imagine yourself opening up your cabinets and smelling this kind of a sweet funky smell. That's usually formaldehyde, urea formaldehyde coming from the adhesives. We're doing a lot of consulting with customers all over the country. The big question we get is, how do you know whether it's an indoor air quality problem or not?

So, the first thing we're gonna do is find out if you have made any arrangements with a local building biologist to do some testing in your house. If you're interested, I'll put a link in the show notes so you can find your local building biologist. If there isn't a building biologist in the area, I'd recommend you hire an indoor air quality scientist, an industrial air hygienist. There

are a number of names for these folks, but they can all do air testing to determine the chemicals in the air, if there's active mold, specifically then formaldehyde.

I'll also recommend another service if you do not have somebody locally or you just don't have the time or quite honestly, don't have the budget for it. A lot of times the professionals can charge in the hundreds, if not \$1,000 or more to test your air. We work with a product that's called a Prism test, and once again, I'll put a link in the show notes. You can actually purchase these if you go to degreeofgreen.com/aircheck, A-I-R-C-H-E-C-K, Aircheck. And, you'll be linked to the company Prism Analytical, and from there you can purchase VOC tests, formaldehyde tests, mold tests, even a test for latent cigarette smoke. If you are worrying that the home you just purchased or the apartment you just rented, the previous owners were smokers, you can actually perform a test to determine if any of those chemicals are stilled in the air. This is really important, as we move along here, because there's 2,000 different chemicals in a cigarette and who knows what else it combines with in the air once it releases? So, go to degreeofgreen.com/aircheck and order your Prism Analytical test today.

So, after your Prism test is done, you now have your results that'll get emailed to you, and what are we looking for? Well, we're looking for what is the chemicals that are present. Do you have active mold spores in the air? And, what levels are we at? I recommend that once you get these tests, and you're one of our consulting clients, email it over to me and we can certainly take a look at it. But, now that you know what's in the air it makes it a heck of a lot easier to actually fix the problem. We don't know if a problem exists until we actually can see the data. We trust that you're sensing something, but we don't wanna just throw darts and waste money and try to fix a problem that we don't really know where it occurs. Once we've got that, now we can move on to solving that problem. So, I hope that helps, I appreciate the numerous calls we've gotten on that subject.

All right, question number two comes to us from Lynchburg, Virginia, Joanne. It has to do with how do you maintain your indoor air quality. What do you do if you are not buying a house or if you don't own a house, but if you're a renter? And, for that, I'm actually gonna have my partner Jay Watts talk to us about that. He's got some great ideas. So, here you go.

Jay: Hello, everyone. Jay Watts here. In previous podcasts, my healthy home building partner, Andy Pace and I have discussed strategies for building or remodeling to create a healthy home, but what if you don't own your own home? Many of you listening may be renters, without the control to ensure that the apartment you occupy or the one you're considering, is as safe for you and your family as possible.

Here are some tips I've developed to guide you in living healthfully as a renter. Searching in the best location. Location, location, location. Yes, it's an old cliché when looking for a place to establish a business, but it's just as important when seeking an apartment. Obviously, budgets dictate where you can live but consider these basics.

Reduce your commute. Less driving means less stress, and less stress must be a part of your healthy living program. Go high, not low. If you aren't restricted to living on a ground floor, it's always best to rent an upper unit. Reduced neighbor noise, better air flow and better views all make sense with an upper unit. Here's a basic one, avoid flight paths and electric grid yards. That's very simple to understand. Greener is better. Look for places with mature trees and greenery. Obviously, gentle on the eyes and provide healthier air quality. Of course, if you're allergic to certain plants take that into consideration in your search.

So, you feel like you've narrowed it down to one or two places. Now, it's time to meet the landlord. But, before you do, ask these questions by telephone or email. Was the unit remodeled within the last three months? New paint, carpeting, flooring, and cabinet rehab are often what an owner does to attract new tenants. But, for someone looking for a healthier place, these improvements aren't necessarily welcome. An honest and open discussion with the landlord about your need for a healthy haven should be at the forefront of your negotiations. For those of you who are chemically sensitive, a remodeled apartment would not be acceptable without some serious remediation.

This is obvious, but I would offer another way of reframing that statement about chemical sensitivity. People are more familiar and comfortable with the idea of allergies, so instead of admitting to suffering from MCS, say you're highly allergic to new construction materials. Even provide a list of those products that could pose problems for you. If everything else about the unit fits your plan, ask the landlord what they would allow you to do to make the space

healthier. A Safecoat for paint or a safe sealer, and a good steam cleaning of carpeting can mitigate many indoor air quality problems.

Ask about your neighbors. As a landlord myself, I can tell you most applicants never ask about the neighbors. I always tell prospects as much as I reasonably know about my other tenants. As a new neighbor, it's comforting and helpful when you do cross paths, and that basic knowledge can be a great conversation starter, too.

Okay, let's assume the landlord is amenable to your modifications. Set a timeline for completing the work, making allowances for the curing cycle necessary with the new products. Two to three weeks after the work is completed is recommended before you take possession. Always look for products with a long track record of successful use by anyone with allergies or chemical sensitivities as the priority in their manufacturing. Many landlords will allow modifications within reason, as long as you pick up the added expense. Some may even underwrite a change if they really want you as a tenant.

If there are no options to making changes, think about investing in a whole home air purification system. The better ones will be more expensive, but how much is your health worth to you? Me? I think, priceless, and they are portable, so they can move when you do. Taking control by empowering yourself is the key in all these recommendations. If an owner is antagonistic or won't allow changes, then you need to move on.

Finally, if you're fortunate enough to know someone moving, and you think you want their unit, contact the owner as soon as possible and tell them you're interested, preferring that they not upgrade. You benefit as does the landlord who doesn't incur the added expense. If they're intent on making modifications, suggest they start with a list you provide of the safest alternatives. In the short term, this benefits you and gives the owner a sales story to attract tenants in the future.

So, there you have it. Most of what I shared is just good common sense, but renting can be stressful. If you're prepared to diligently qualify the landlord and the apartment as much as they are you, you can feel secure knowing that a healthy home may be just around the corner.

Andy: Thank for that story, Jay, appreciate it. I love the fact that Jay mentions telling the landlord that you have allergies to certain building materials, certain chemicals. You know, folks, I know those that have severe sensitivities sometimes cringe when we simplify the problem, simplify the disease to call it just an allergy, and we don't necessarily mean to do that, to belittle the situation. More so we're doing it to try to get others to understand what it is. When you're looking to rent a space, now's not the time to try to educate a new potential landlord about this disease that you have. Now's the time to get them to understand quickly that you just have an allergy to these chemicals, and move on from there. It's just much easier to understand for folks who really don't know what's going on, and as Jay put it, you don't wanna necessarily scare 'em off right away. So, great stuff, Jay, thank you.

All right, the final question for the day comes to us from Steve in Sacramento, and Steve has asked a number of questions to me over the last few months about how to reduce mold in a whole house remodeling that he's doing. Kind of hard to answer on a podcast, even if I took a couple of hours. It's kind of hard to answer because mold is such a problem all across the country in construction that we really need to drill down to the facts of the actual project and what are we dealing with before we can give our best recommendation.

But let me give you four things that I tell every client when that topic arises. The first thing is, whatever the framing system that you're using for the home, again, whether it's new construction, remodeling, what have you, whatever the framing system is, if it's standard stick framing, wood stick framing, if it's insulated concrete form, so forth, whatever you're using, button it up as soon as you can. What you don't want is to have a lot of openings in the walls for doors and windows or even if you're doing an addition where you have to add a roof on the new piece, the new part.

You don't wanna have those open to the elements to allow rain and just moisture to soak into the new wall assembly, because then it has to get out, and the reason why mold is such a problem these days is that we build these homes so tight to allow for very minimal moisture transmission, and the use of building wraps and vapor barriers, and so forth. And moisture gets stuck in that cavity wall and when you have moisture, when you have condensation from maybe insulation that wasn't properly detailed, or a thermal issue where you have warm air in the wintertime that travels from the drywall into the studs and hits cold temperature from the

outside, because things weren't detailed properly, and you can get condensation, and then you've got a food source for mold and then mold can proliferate. So, if you can get rid of a lot of that moisture to start with, or to keep it from getting into that wall assembly, that's the number one point.

Number two, reduce excess moisture in the home during construction. So, I really advocate for during the drywalling, mudding, priming and painting phase, to bring in either an air scrubber or an air exchange system. You can rent these from locations across the country. Bring these industrial air scrubbers or ventilation systems into the house to expel a lot of this excess moisture. Again, the average new home that's built has probably 500 to 600 gallons of moisture in the air that gets locked into the cavity wall or the flooring, what have you, just from the construction process. So, if you can expel a lot of this at the time of it occurring, it's less likely for that moisture to travel into the wall and then help to feed that mold. And again, mold is prevalent everywhere. Mold is always in the air, so it's not that we're trying to prevent mold per se, we're trying to prevent the proliferation, and the growth of damaging toxic mold. So, reduce the excess moisture in the house.

Brings me to part number three. You gotta get the furnace system, the HVAC up and running as soon as the home is buttoned up. Again, for new home construction or for whole house remodeling, as soon as the wall and the roof are weather tight, you gotta get the HVAC running, and here's why, because of that excess moisture. Like I talked about before, with all this moisture in the air, and I'm recording this podcast in July and here in Wisconsin in July it's about 90 degrees and about 80% relative humidity. If I were to apply a coat of Safecoat paint on my walls it'd probably take a couple of days for it to not feel tacky to the touch, and potentially much longer for it to reach a full cure. And the reason is, is that the curing process of paint is the moisture evaporating out of the liquid coating to help create the film. If the humidity level is at 80% there's nowhere for the moisture to go, so it just stays in there.

So, you've gotta bring down the relative humidity in the house and that is installing your AC unit, installing fans, using those air exchange systems or the air scrubbers. But, definitely running the AC during the crucial parts of the process will make a big difference in cutting down the possibility of the mold.

And finally, this is something that's relatively new to us. I've known about this product for over 10 years, and it kind of went by the wayside and I think they entered an agreement with a large manufacturer and it just kind of went away and now it's come back to us. It's a product called Caliwel. Caliwel is a coating that's made with a high degree, a high percentage of calcium hydroxide, which is lime, a mineral, ground-found mineral. Calcium hydroxide raises the pH of the surface to such a high level that mold cannot sustain itself. It raises the pH to about 12 and a half, 13, and it keeps it that high for up to five years, and that's really what's really amazing about this product.

So, I recommend that you use the Caliwel. It's called their Caliwel Industrial Coating. Use that in the cavity wall of your new construction, or your whole house remodeling, and so let's just take traditional stick framing as our example, because this is what's done most of the time. So, after the exterior wall is framed, your exterior sheathing gets installed. That's your OSB typically sheathing that's installed. And then on the inside, typically you install or put in your insulation. And so before you put your insulation in I'd recommend you spray on, if you can, two coats of the Caliwel Industrial. Caliwel Industrial will kill any mold spores on contact, and then it'll stay active for up to five years, killing off any mold spores that may attach itself to that, or try to attach to that surface. And the reason why that's important is because in new construction or in a whole house remodeling project, if you're gonna have a mold problem in the exterior wall, it happens usually within the first 12 to 24 months.

So, other areas that you may consider using this Caliwel Industrial, basement walls. If the basement walls are either concrete or concrete block, I'd make sure that the walls are clean and then apply a couple of coats of the Caliwel Industrial. Again, it's gonna kill off mold spores and keep it from coming back for up to five years. Caliwel also makes what they call a Home & Office paint, which is a finish paint, comes in about 8 or 10 colors. It's a great product, don't get me wrong, it just doesn't come in a lot of good colors. It's very light pastel-y colors. Definitely use this in, let's say, bathrooms where you know you have a ventilation problem, because mold happens in a bathroom mainly because there's poor ventilation and there's always a food source, dead skin cells and soap scum and so forth.

Then the last place that I like to use the Caliwel Industrial is the attic, because attics generally, if you have poor detailing in your home for air tightness, so you have a lot of air leakage

because of a bathroom ceiling fan, because of recessed can lights, other penetrations through the ceilings and to the attic, and that's how heat and moisture or cold temperature and moisture can travel, and you get condensation and then you get mold. So, I like using the Caliwel up there as well. It really cuts down on the possibility. I guess I look at it as a very inexpensive insurance policy to prevent mold problems in the future.

So, that's it. That's their four points that I give everybody. Folks, there are dozens of ways, probably hundreds of ways, that we can eliminate mold in new construction and remodeling, but those are the four areas that I really think that, if we just did those, it would make a world of difference in all of our homes. And, well, that's the least we can do, I believe.

So, we got a little more time so I'm gonna answer one more question, and this is a question I get a dozen times a day. Okay, I'll just jump right into it, here we go. "Andy, loving the information. Love all the recommendations you have given me. Why didn't I know about you two years ago when I built my home? Or, why did I know about you last week?" I get this question, I can't tell you how often every day. First off, I'm humbled that folks appreciate my recommendations and can really use these ideas and by experience to better their indoor air quality and better their homes.

But, don't stress yourself. This is what I tell everybody when they ask that question, "Why didn't I know about you?" Or, "I wish I knew about you two years ago." My answer is, "Well, now you do." From this point forward ... don't beat yourself up about decisions you made before you knew that there were better decisions to make. I get a lot of customers that have built homes, let's say, in the last 10 years, and they just wish they knew more about this when they built their homes. I don't want you to start ripping things out and replacing it right away, because I think that's possibly throwing the baby out with the bathwater here.

Keep in mind that most things like paints and coatings off gas for about two and a half to four and a half years after they reach a full cure. Other materials like plywood and OSB and MDF and these other manmade products, insulation, carpet, can off gas a lot longer than that, of course, but don't repaint your house right away because you think you might have a problem. Don't start ripping things out and replacing. Let's be mindful of this. Let's figure out a good plan of attack. Understand that maybe everything was fine in your home up until the point where

you found out that there could have been a healthier way to go. And sometimes ... you know, the mind is a very powerful thing, sometimes that can immediately bring a reaction to the oh, no, what did I do. And now I sense something in my house.

So, again, understand that if you lived in that home for the last 10 years, and you haven't had any problems, that's great. Just understand that from this point forward you can make healthier choices when you need to replace or repair something. We offer those choices, either through Green Design Center, through Jay's company AFM, just a variety of companies around the country that just make or sell some really good high quality healthy building materials. But, please don't get upset that you missed out on something. So, now that you know that there are healthier options, when it's time to change the carpet, when it's time the wall color, install new cabinetry or countertops, you can reach out to me now and just do degreeofgreen.com appointment, and book yourself a 15-minute or a 30 minutes consultation and we can go through a lot of these questions you have. It's amazing how many questions we can get through in a 15-minute period.

That's your best plan of attack. Don't fret over something that's already happened. Let's just move on from this point. So, I hope I answered that question all right. Again, I am humbled that people actually have that feeling, when they learn that there are healthier ways to go and they wish they would have known about me years ago. I love what I do. You can probably tell by this podcast how much I enjoy helping people out in allowing them to live in a healthier home.

So, that is it for the podcast for this week, folks. Please go to degreeofgreen.com, leave us a SpeakPipe message. We'd love to hear from you. We'd love to feature one of your questions on one of the future podcasts. Also, go to iTunes. I would be greatly appreciative if you would leave us a rating, give us a five-star review. We're trying to get bumped up on the iTunes New and Noteworthy list. I don't know how that works, honestly. It's way above the amount of listeners that we have, I think, but you never know. If we could just get a few more ratings, a few more reviews, it would be greatly appreciated and I think it also helps people who are searching for shows on iTunes. The shows that are highly rated and have more reviews are bumped up to the top of the search engines. So, there you have it. That's why we'd like for you to do that.

So, that's it again for this week, and we will talk to you again next week. Have a healthy day, folks.