

# HPH348

## SPEAKERS

Alexx Stuart, Ben Adam-Smith

### **Ben Adam-Smith** 00:00

This is House Planning Help episode 348. Hello, I'm Ben Adam-Smith and this is the podcast for you if you're interested in house building or renovating. I'm exploring what houses we should be building in the 21st century, and try to break down the major roadblocks that may get in our way. Coming up in this session, my guest is Alexx Stuart from Low Tox Life, and we're going to discuss mould. Yes, we've seen it. But what actually is it? Why does it occur? And how do we deal with it? So the topic came about during my stay in Australia, because the apartment we were in, definitely had some mould issues. You could smell it when you came in. My kids were in one of the rooms that was probably worst affected. And I noticed James developed this cough, it was normally first thing in the morning and then just before we go to bed, and those typically were the times that we were in the apartment. So was that the connection there? And I was chatting to Amelia Lee from Undercover Architect, our last guest and asked her, did she know anyone? A mould specialists who could help and who might be able to answer a few questions? Which was when she sent me to meet Alexx. So Alexx's whole backstory, her whole business is based around health and I thought that was a good place to start with asking her what she does online.

### **Alexx Stuart** 01:21

I founded Low Tox Life, the low tox movement, as some people might know it back in 2009, as a response to me, waking up to the things that were in our everyday items, things we were putting on our skin things we were eating, snacks, we're feeding our kids. And I figured if I had figured this out, perhaps some people might be helped out there. I'd always been in teaching, training, motivating people teams in management, and sales. So it was a natural fit to sort of have that passion hobby on the side. But it very quickly grew to people uniting around food allergies, intolerances, and needing to move away from those packaged foods. And then naturally, that cascades on to what's in our personal care products and cleaning products. And people wanting a more authentic consumer experience for the things we bring into our homes every day. So my day to day was very quickly consumed by running and creating e courses, writing books, and starting a podcast to help people navigate low tox living which is essentially doing better for us and the planet through food, body, home, mind and environment pillars. That can look very different for different people. Depending on where you're at where you live, what your priorities are, if you've got health challenges, or you just really want to look after the planet, there are different motivators for everybody, which is why I'm not a blueprint thinker. I'm not a black and white person, I am no guru. It is simply about presenting ideas, pioneers, people and ways to step through life perhaps in a healthier way and leave less of an impact behind as we go. So or more of an impact, you could say in a positive way to allow the next generation to do better. And that is my day to day.

**Ben Adam-Smith 03:11**

It always fascinates me how many aspects there are to sustainability. And I'm well aware that will I hope that I will improve through my life, I'm always striving for that. So it's a great resource. And of course, we'll link to it in the show notes. But I wanted to talk about one specific thing today, which is funnily enough, something I've never focused an episode of my podcast on. And I know that you have a lot of experience on this. So forgive me if I bring you back. So I wonder whether you could just start with a bit of background with your relationship to mould.

**Alexx Stuart 03:48**

So me like all of us who have grown up in this time, my relationship with mould growing up was that it was this annoying thing that showed up sometimes that you had to try and clean up and very linearly, I thought that meant buying a product like an exit mould type thing from the supermarket that stank and kind of made you breathe funny for a little while afterwards, but you couldn't see any mould afterwards and it did feel clean. I however, in 2010-11 would be the earliest retrospective. I've grown up I've got a small child, I'm noticing I am not myself. But as I said, this is in retrospect, so I don't know what it is. But I started feeling strange things. Things like noticing, I mean, I'm an expressive reader, when I read to children. However, I would notice that I'd be out of breath, reading a children's book, like almost like if I'd do something emphatic with one of the characters I'd be like \*deep breath in\*, Why am I needing to take this, it's not that hard to read a book to a kid and so that was one of the earliest things I noticed and then starting to feel quite itchy and histamin-y and just responsive and allergic to things after a meal, or if a mosquito bit me the welts were really big rather than just, you know, annoying for a day. And it was the first time that I noticed my furniture felt damp in this particular apartment we were living in at the time. Again, at this point, I'm not linking mould to health issues, I'm just feeling a bit sick and at the same time, I'm noticing that my couch feels a bit wet, and that all my bags and my shoes are growing mould on them. And this is annoying, still annoying. And so I remember calling the landlord who then sent the owner in because this guy owned the whole building, and he had built it himself. He was a builder in the 90s. And he screamed at me for not being good enough at cleaning my house in front of my 18 month old baby who was very confused by the whole situation. They left I was sort of shaky like an animal who's just experienced trauma. I couldn't believe a human had spoken to me like that. Then the next day, we receive an eviction notice and the real estate agent profusely apologises and said, Don't worry, I'll put in a good word wherever you apply. And the thing was, again, in retrospect, I'd been chipped away at health wise by this mould that I didn't know was affecting my health. Turns out they hadn't sealed and waterproof the sub floor, the slab well enough. So water was literally just coming up through the floor, it was that humid. And the thing was, when you get chipped away at and you feel sick, you feel sort of brain foggy, you feel lethargic. It's almost like mould. And I'll unpack this as we go on Ben. But it's almost like mould becomes an abusive relationship where you don't know how to fight for yourself, stand up for yourself and get out of that. Like you just, you just think, Oh, God, this is all just too hard. Let's just go. And so we just went and we found another apartment. And then that is where I got really sick. So over the years, I just started putting on more and more weight. Even though I was incredibly fit, playing tennis or going to the gym at least five times a week, walking with my baby at least 15,000 steps a day, like very healthy, eating beautiful clean food. I was the queen of low tox teaching people how to do all this stuff. And again, it was unbeknownst to us a water damage building that had a big leak that had been painted over and re carpeted and then just re put back on the rental market. So we thought what a gorgeous big, art deco unit with stunning big

high walls and a lovely fresh carpet. But what was behind those walls was black mould. And when I became really sick, it was a very quick, intense cascade of symptoms that then presented as autoimmune neurological things like twitching, tremor, and muscle spasms, involuntary muscle spasms, electric shocks, metallic taste in the mouth, the sense that I would wake up as if I was in the middle of a fisticuffs fight, I'd wake up with my fists like really tight. So obviously the nervous system is like primed and literally have to undo my hands and I'd be holding my phone to do a puzzle and it'd be shaking. And then the heart symptoms started which made things very scary with ectopic beats and like my heart would just stop for a couple of seconds and then just kind of start up. It was so crazy. I went to so many doctors had so many scans. That cardiologist after \$3,000 said, what's actually quite typical for women in their 40s to start at just turned 40 mind to start having the odd irregular beat. There's nothing I can see here that's worth alarm. Come back and see me when you're 50. Needless to say, I'm going to be 50 next year and I will not be going back to that cardiologist I found a much better one since but these were the things that were part of my every day that also had no answers. Not a single person said, I see what might be going on here. What What's up with your house? It took me finding some random chiropractor in America who had because he had a very unwell child had found out through just being completely passionate about unravelling his son's story. That mould can affect human health. There was then a doctor called Richie Shoemaker who had done some seminal work around a community experiencing CFS after a big hurricane event in America. That's chronic fatigue syndrome for people who don't know that acronym. And then I started to piece it all together when we got our house tested, came back with very alarming levels of something called chaetomium which is CHAETOMIUM for the nerds who like to look things up and there was published literature often by veterinary science, animal science is a much more ofay with mould than we are in conventional medicine, linking chaetomium and other types of black moulds like Aspergillus, Stachybotrys, and Willemia to severe health consequences in animal species, and some was starting to come out, especially in Finland, around sick building syndrome. These were words that were starting to, eight years ago, this was it like it was so hard to find out, you had a mould issue. I look now at what's happened in eight years, and how much more support people can get from a health perspective. I'm so thrilled because I never want anyone to feel that bad. Honestly. It was like, When am I going to die? And how does no one know there's anything wrong with me feeling this bad? I was so shocked. I was so disenfranchised!

**Ben Adam-Smith 10:57**

What this is always one of the worst things, isn't it about going to the medical profession? And then they don't find anything really

**Alexx Stuart 11:06**

Its not their fault, is it either, Ben, because it's not like they had a chapter on mould and that no one studied. It's not there, but they don't learn it.

**Ben Adam-Smith 11:15**

So just going back to those cases, were you in really bad accommodation, that you've just been very unlucky to have these two properties in a row? Or what did you discover from all the tests that you ran?

**Alexx Stuart 11:30**

Unfortunately, we have lived in 14 apartments in nine years. And I can tell you, only two of those have not been water damaged. We're sitting in one now, which is nice, and this one is over 100 years old. So it's not necessarily about age, it's about the way things are built, it's about the way they maintained. And it's about the fast action of a water damage event in terms of how quickly you repair things and get the moisture out of the building. And you don't have to live in a humid climate like Sydney to be worried about that water acts very quickly to turn into mould because it's food source, moisture, bit of dust, that's all mould needs to grow. In Australia, as it stands, you've got two major issues, you have this negative gearing, situation in property where people can buy an investment property off an investment properties' equity, off an investment and so that you've got like 10 in your portfolio 20-30. And then people start becoming property developers so they then own the whole building so they don't have any questions when they want to do things or how they want to do things. And that is a huge problem in Australia because you're very little accountability, very little maintenance. So you know how most countries will have the fire warden come and check that all the alarms are working in the house and someone knocks on your doorbell we're just doing the fire check and burn that there's no one checking that the air conditioners are clean every year. There's no one checking that the gutters in a rental property aren't full of leaves and that the house is draining properly. There is nothing to say you need to check by law. It is genuinely just about tenants having to scarily especially in a market like Sydney right now complain hoping that they're not going to be evicted or have their rent dramatically increased for being a annoying tenant that gets then pushed out. So you have that issue. You then also have the way things are built, very cheap materials. Then you stack on to the cheap materials like your drywall, which is very easy to pervade with mould once you have like a small aircon leak, or if you don't get on top of it. Then you have the obsession with energy rating systems without an obsession with how moisture is moving through a building. So you end up building and you would know all about this you've got a Passivhaus, you need to move air through a building constantly needs to refresh. If you've got humans in their living, it doesn't even need to be humid climate, just putting on a soup is going to raise the humidity of your kitchen by 10/15/20%. So you have these sorts of issues where we're now living in bubbles, containers that don't have any airflow and so mould then starts to grow through dry walls very thin material because of excess humidity inside. So there's a number of factors at play, including climate change, and now we have rain bombs instead of constant more moderate rain. So buildings you know with sideways rain bombs, they're not built like fortresses to avoid moisture coming in in these scenarios. So climate change, poor building, poor maintenance, lack of accountability, I would say and then lack of tenant or owner literacy around moisture and moisture control and water control when there are issues. Those would be the main reasons why we end up with mould. You could then add oldness of building, let's just say you're in a worker's cottage that was built in the 1880s. Chances are 140 years later, you're gonna have some rising damp issues, the water membranes can't possibly last that long. So, you know, you look at the big news streets of London or the big worker's cottage streets in Paddington here in Sydney, there's very few of those that aren't water damaged. Now with rising damp, so lots of different things, which can make it scary, because you think, Oh, my gosh, I'm listening to this. And now I must have a problem because I take one of those boxes. And it's not necessarily true. I always as an educator, and as someone who's been through absolute rock bottom, when it comes to mould, I do not want to leave people then feeling like they have to panic about this subject all of a sudden, for me, the issue is a complete lack of literacy and accountability. And unfortunately, that mould to fix it can be expensive. So whether you own the property or whether you're

renting it, sometimes both of those people just can't afford the situation. So they just stick with it, and just repaint or carpet and hope that that's going to move the needle.

**Ben Adam-Smith 16:14**

Can we take a step back and look at what actually is mould.

**Alexx Stuart 16:20**

So mould is many things, it's fungi and fungi's job is to be a part of the cycle of life, it's job is to decompose things. They need food, and when they have food, like any kind of natural source, paper, drywall in our houses, moisture and dust, they get to work thinking, Oh, I've got to grow and decompose this thing, because my job is to be the end point of the beginning of the cycle of life. So I've got to get rid of this stuff so it can become something new somewhere else. There are different moulds that act differently when it comes to humans. Again, I use the mushroom example. They can be extremely poisonous and toxic or extremely delicious through pizza. So it's a very big spectrum where we don't have to panic about all types of fungi. But there are certain species, I guess, most commonly known as Black moulds that are most damaging to human health, and they would be our species like the Chaetomium, Stachybotrys, Aspergillus, Penicillium and Willemia as, as the best known ones to the current science, but there are many more that can be damaging, like I mentioned Chaetomium and the neurotoxic impact, Aspergillus is more thought of as a big respiratory impact, then you have Cladosporium, the one that grows in the air conditioning systems, if you're not cleaning them quickly enough, that tends to end up there or in carpets, if you have too much moisture and humidity in a carpeted environment and that is congestion, lung infections, always just kind of getting sick coughing, you would notice more of that kind of stuff. But if you have more of a mental health picture, depression, schizophrenia, or a nervous system presentation, maybe you've been diagnosed with Parkinson's, MS, those kinds of diseases you really do want to look out for and get testing on, do I have mould spaces in my home that are actually hampering my ability to flick off that cough?

**Ben Adam-Smith 18:26**

Yeah, I think we can always underline ventilation, good ventilation will go a long way. And on that subject, I bring up my own example because I've been out here in Australia, and I've been staying in a ground floor apartment. My son has been sleeping in one of the rooms and has developed a cough and you only need to go into this room to be able to smell and sense you can see a certain amount of mould I suppose that's something I was gonna ask you is can you always see mould?

**Alexx Stuart 19:00**

No, you can't. The way spores function is even a dead or a dormant mould spore can still have bacteria coming off, it can have a bacteria, it can still have mycotoxins coming off it so the spore gives off some certain things and sometimes you cleaned up some mould on a wall but maybe it's in the carpet or maybe because it was a leak. It's also slightly under the floorboards and that is still toxifying an environment. You know a lot of people think gosh, what kind of apartment were they living in for her to get this sick? You couldn't see it? You could not see mould it just looked like a lovely big high ceiling art deco apartment to us. In retrospect, could we smell it once we were out of it. It's kind of like that thing when you get rid of your air fresheners and fabric softeners and all that fake fragrance stuff and then you smell it at a friend's house and you think how was I living with these products? Sometimes there is

that desensitisation element, but you're not always going to be able to see it. That doesn't mean you always need to be stressing about whether it's there or not. I'm a big fan of test, don't guess.

**Ben Adam-Smith 20:09**

Great. So test, what tests do we run then because I can see a number of issues. First of all, it's at the bottom of the apartment building, then you've got it's next door to a bathroom that, Oh, my goodness, you know, all sorts. I've never seen a shower that's so ineffective, it sprays everywhere, then we've got a laundry room underneath. And then my sister in law, who used to live in the apartment was telling me that it got fireproofed in the laundry area, there was some regulation they had to have. And that's when the problem got a lot worse. But you've also got this big wardrobe that hides what I suspect, when they pull that out, there's going to be most of the mould and probably poor ventilation. So I've mentioned quite a lot of things. Oh, yes. All about the water driving up from the foundation. So how do we separate out? Or do we not even need to do that? We know there are lots of sources.

**Alexx Stuart 21:01**

So you're dealing with two things here you're dealing with How sick is this making the people in the building? And that's one set of information, then you're dealing with? Where is this coming from? And what do we actually need to work on first, because it could just be that the waterproofing was done badly, or the membrane has been broken in the bathroom, and so it's seeping through and then yet probably backing on to the cupboard. That would be about getting professional remediators to redo the waterproofing of the bathroom, probably put in a new bathroom, to be honest, usually is what needs to happen there and then replace the robe, remove any carpeting, make sure it hasn't gone under through a floor and make sure there's no moisture coming from any other walls. So sometimes, you know, one of the first things is does this back onto piping and a bathroom, we start looking into that there, and what mould technicians come in and do, or a building biologist who has been trained in mould, they have all sorts of wonderful tools that they can actually test and moisture map whole rooms. And they can see Oh, it's coming from there. So you can go oh, there's nothing on the floor at all. So it's not actually the laundry, it could just be a coincidence that the fireproofing happened downstairs, and then the waterproof membrane, maybe due to that process, maybe just coincidentally, at the same time, broke down. And then every time you had a shower, it's actually leaking under through the slab. Because you mentioned apartment ground floor, is it raised?

**Ben Adam-Smith 22:30**

I don't really know fully, but there's definitely rock underneath it. And they are at the bottom.

**Alexx Stuart 22:35**

Yeah, the bottom is not great. I always say if you can avoid being at the bottom of a hill or the bottom of the building and a humid climate, please do because they are the worst mould traps, it's just it's very hard to stop all that rain and humidity from starting to affect your building and add on top of that your head builder might be waterproof certified, but then they get the rookie tradie to do the waterproofing in the bathrooms, you have no control over that unless you know it's really important you say you put your best person on waterproofing, I'm putting in the contract that my waterproofing lasts seven to 10 years minimum. Otherwise, you're paying for the whole refit of the bathroom. And you say otherwise you don't get the building job, like people don't have that kind of empowerment level to know, to actually insist on

certain aspects of a build been done well. But back to your situation, I would get a building biologist to come in and moisture map to see where the moisture is coming from that way, you know, Oh, it's over there. It's the bathroom, Oh, it's from downstairs, something's happened when they did that to the laundry. And then you know, you can then engage the type of person that's going to be able to remediate and repair. Then from the health perspective, you want to know what type of species, you want to know what type of levels to make that confirmation that the people have experienced a mould issue. So you're not then dealing with like an ENT not knowing that there's toxic mould because an Ear Nose Throat person will actually have a certain amount of literacy around that these days. Thank gosh. So I would say, multipronged testing is the best way forward, you have something called a PCR based ermi test ERMI, which will give you a huge list of species and the levels that they're operating at above normal. You can then also do things like a tape lift, which just gives you a surface impression of what's happening on the floor or on top of the wardrobe is a good one where dust contend to collect to tell you what kind of species are there and how much of that species is living. So active mould because that's actually a really important part, especially when people are experiencing symptoms. The living mould and humidity driving that living will be the most impactful because it's alive and it's multiplying and that's really when you're going to get the most amount of symptoms so that figure is really important in tape and air samples. Never get an insurance company to come and sample because they will tend to want to mitigate the amount of thing that this is going to cost them. And they'll just take a little air sample from the middle of the room, not in any kind of structure that might be backing onto a bathroom, they will be less likely to. And then even worse than that, sometimes you get the smell sniff look test, like what I can't see anything here. So there's no problem, its like we're relying on your human sight. I mean, that's just ridiculous that there's not even an approach that is systemized and important to follow. So you really are dealing with case by case, which means you need to know so I would say a tape lift, an air sample, and also you can get something like it's like a little vacuum that a mould technician or building biologist will use to collect like agitate the carpet and bring that into a little cassette. Because we actually got after a recent air conditioning leak went into the carpet, I pulled up all the moisture, we had a 50 litre dehumidifier going like everything got really dry really quickly, which is very important. But I wanted to know what we were still dealing with to know if we needed to replace the carpet in the walk in where it happened. And sure enough, there was Cladosporium, and there was a lot of living Cladosporium. So we hadn't got it all. And the tape lift of the carpet gave us not much. But when she did the cassette sample, which agitated the carpet and then sucked that air from the dust that came out of the carpet into the cassette and tested that it was astronomical. So we knew we needed to replace the carpet straightaway. So just getting someone on the internet to send you some little tape lifts to put a little glass sample down, it's not enough, you need to multiprong it to see what you're actually dealing with. And if you're just dealing with one room, the good news is is this does not need to be hugely expensive can be just a few \$100. And I know that's not in everybody's budget, but going to the doctor all the time going to the pharmacy all the time, you've got added up in terms of what illness costs, because that will always cost you way more than a mould test.

**Ben Adam-Smith 24:00**

Well, I just think it's a really interesting example, because my daughter's in the same room. She hasn't developed any symptoms. I was also going to ask about whether we're in the next door room. And again, I wouldn't say we have any symptoms. So is that an indication or not necessarily, because if I was very susceptible, I would have this too.

**Alexx Stuart 27:35**

So this is where we get into bio individuality, genetics, immunological issues, and different people being affected at different rates, different levels of stress. So let's just say you have two kids, and you know, just from birth, that one of them has a greater tendency towards anxiety and stress, like one small thing happens. And they might tend to blow things out whether the other kid might, you know, water off a duck's back, I'll just go with my day. So you already know that that person is more primed, bit more nervous system heightened.

**Ben Adam-Smith 28:03**

And this is really interesting, because this is exactly what he's like!

**Alexx Stuart 28:07**

Oh, wow! Okay, so I purposefully did not want to ask anything about your kids, even when we were just doing the pre record chat, because I like giving the information then letting people go, Hold on, woah that's, that's us. Because it's so important for us to not feed biases into or trying to look for, I actually sometimes they might be really anxious, whereas if you just say it, and then it parent is just listening go oh, that actually that matches up. So more primed for stress means your nervous system is more heightened means your nervous system is doing too much work. And therefore your immune system and digestive systems often don't get their share of the pie to function correctly. So the nervous stressed people, which is why women in their 40s tend to get sick a lot because our nervous systems are getting haywire because our hormones are starting to leave the building, these people will tend to be more affected, you then have some interesting genetic science that looks at detoxification and methylation pathways. And that can be very technical. I'm not going to go into it here I don't want to scare people. But you know, if you're starting to talk to health professionals and you're thinking mould really has done a number on me and I need some help, you want to be working with professionals that understand genetics and methylation and know how to look for what might be going on with you. But as I said, if your immune system is compromised, because you tend to be stressed all the time or tend towards anxiety more, you will tend to be hit by mould more as well. So if your kids and you know if you're what I've explained is your kids and the other one is more water off a duck's back. Her immune system is probably working just fine to just battle that mould while she's in there. And then she'll bounce straight back even if she had one or two little, Oh, yeah, that's not normally like her. But your son might take a little bit more time to recover from an environment like that. Because, as I said, nervous systems getting more of the energy, immune systems getting less, does he have allergies or any intolerances or anything like that?

**Ben Adam-Smith 30:17**

I don't know so much about that. But I'm going to conclude this podcast with what happened when he got back to the UK, because he's definitely had this cough that seems to have come out of nowhere. Of course, it could be other things where we're not taking him to the doctor at this stage. But I suspect the second we get back to England, everything will disappear. So this is really interesting as well, because I think you said earlier in the story that this built up, this got worse and worse, and then got to a crunch point. But going back into that environment can really trigger you,



**Alexx Stuart 30:39**

In his wonderful clean Passivhaus. Yeah, no, he's very lucky. And that's probably been part of what's acted as scaffolding for his constitution and then you're somewhere where you don't have your scaffolding that you normally have. And then it goes haywire. I know, because my mother in law lives in a federation 1800s colonial building in the country and I can't stay the night there unfortunately, I just cannot be there. It can. So this is where it's really interesting. And you guys have an amazing person over in the UK, who has done some seminal work around when the nervous system and the brain danger responses get involved. So when you've been really traumatised, either by abuse or by illness, you then have your amygdala and your insula parts of your brain that are designed to keep you really safe, they get really good at their job, and unfortunately, a little bit too good at their job where they set off all sorts of alarms to keep you safe, before you're actually even in legitimate danger. PTSD might be a way that a lot of people know that. And so the same thing can happen with biotoxin illnesses where you've recovered, you've moved somewhere where you're no longer exposed every day, or certainly not at any dangerous levels. Because mould really is part of our environment, it's not like we can be completely mould free. In this world we don't want to be, but you might then be retriggered more easily. So a lot of people who become chronically unwell with things like a tick bite, or a mould exposure that drives an initial awful illness, and they do a lot to recover. They often don't just need to physiologically or biochemically recover, they also need to do a lot of work in meditation and relaxation, safety, joy building, you know, a trust that things are actually generally okay. Because you lose that trust mentally and beyond your conscious. It's actually your subconscious parts of your brain, no longer trusting environments. So it's big Ben, I know and this is like we've really gone everywhere here, consider it a bit of like a tasting menu on mould. And some people might just connect with one tiny piece that might then you know, send you on a really big education journey, I've got a tonne of resources, I'm sure you'll provide a bunch of resources for people at a local level, but I would say if anything that I'm talking about so far, is like oh we really need to look at this, just know that unfortunately, conventional medical people are not trained in mould yet in their literature other than to know perhaps that Aspergillus can cause aspergillosis a very severe lung disease. That's about as much as you'll get in the medical profession or from the thrush perspective with Candida, mould and yeast. So those are what conventional medical professionals know. You tend to need to find people who have gone on to figure out how to help their patients better. This will tend to mean they've got integrative medical training, or they've done some naturopathic training, and they've gone to learn about mould independently. And so don't be disheartened by your poor GP just going oh, God, I don't know what to do with you. They just haven't learned it. You'll need to widen your toolbox. And then from a building perspective, don't think you need to become a global expert on mould. I kind of had to because people just started asking me about it. And because I really, it's my personality type I cannot feel well or see people feel unwell, to the degree at which I felt unwell and not try and figure out the puzzle. I'm just a puzzle person. So I need to know every piece of that puzzle. You don't, but find people like building biologists or mould technicians who can help step you through your building situation and figure out whether you have a water damage issue a leak that went unnoticed, a slab that wasn't properly waterproof membrane That's broken down in a bathroom or laundry due to just simply being an old building a gutter that wasn't cleaned. And so the water backed into the house on one side, you will have those sorts of professionals that can help you with those sorts of things. And do the kind of testing, as I said, try and get at least two, three different types. So you have a good, strong, comprehensive picture of what you're dealing with. And then the last situation is where maybe you're listening to this, you live in a really rainy climate or a really

humid climate. And you actually just need to learn what your humidity is inside your house, you don't have a mould problem, but sometimes you see it growing, but it's like on the surface, like on a tile or in grout in a bathroom. I mean, bathrooms are wet. So of course, they're gonna grow mould if you don't keep them dry. Or maybe you've noticed it behind a cupboard, in a kid's bedroom where there's constantly a tonne of kids in their breathing. And it's just because the humidity has meant that a bit of dust behind a cupboard has meant surface mould has grown. So we don't need to freak out. Every time we think there might be some mould, it could be humidity. So your last bucket of inquiry is get yourself a hygrometer, maybe two or three if you live in a multi level or multi bedroom home and put your hygrometer, which is basically like a thermostat that also checks for humidity levels, digital screens, I've got one on the fridge right now. And it will tell you what the current humidity level is in your home or in that room. Because often, if you think about orientation, you might have a shady a cooler part of the house gets condensation on the windows in the wintertime, that kind of picture where there's just one part of the house that struggles to stay below 60%. And below 60% Humidity is what will be below the ability for microbial growth to occur. So if you have a monitoring system set up with cheap hygrometers from just online, you can buy one for like 10 pounds, you will start to go oh, okay, it's over 60%. And it's been like that today. And tomorrow you wake up is still over 60% You have dehumidification in place, you whack on the dehumidifiers and you drive everything out. You don't want to have windows open when you're dehumidifying, you actually want to have windows closed. If it's really raining outside or you live in a humid climate. Just know that that means that 90% outside that you think oh, we need airflow. That 90% is now inside because you've got the air from outside coming in. So sometimes your best bet, and Passivhauses teach us this, is to actually have things closed and sealed and mechanically put in place dehumidification, so that you are keeping a dry home under 60% humidity. So it's really three different things that you need to know about. And hopefully that simplifies things for people to not be overwhelmed as you explore this and what how it might relate to you. I really want to emphasise, don't panic. There are solutions no matter which group of people or which level of inquiry you need to undertake.

**Ben Adam-Smith** 38:08

Well, I feel we've covered a lot in our chat here. I could keep on going. But I don't I just feel that that's a really good introduction to mould covering all the different areas. I'm quite happy for um what we talk about a lot at House Planning Help that its quite effective. They show you the graph, don't they? We've talked a lot about humidity that you could go to too dry as well, couldn't you and have a completely different set of struggles?

**Alexx Stuart** 38:35

Yeah, your floorboard start to buckle and you have issues like that. So 40-60, 40-55. If we were going to give like a bit of a always dryer is not always better 40 to 55% indoor humidity is the sweet spot. That means you're not ending up with people with dry nasal passages and, and snoring as well, which you don't want either.

**Ben Adam-Smith** 38:56

Is there anything else you want to mention? Just to close up to date?

**Alexx Stuart** 39:02

I would say if you're thinking well, where on earth do I start? If there was one thing I could recommend, is get to know your home. Get your hygrometers, if you have more than a one bedroom apartment, you need two hygrometers, if you have a four bedroom, multi level home, you need four hygrometers one at each end of each level of your house, and you walk past it and you check in and you're like wow, we're actually at the sweet spot here. How great but oh, it's summer and everything's changed or, oh, there was a flood, you know, down the road and it didn't affect us. But the humidity in the whole town right now is nuts. Just start to know the fluctuations. And if you notice regular fluctuation above 60% humidity, you need to invest in dehumidifiers there is no way around it. Ducted air conditioning can only go so far. Split systems definitely don't cut the mustard when it comes to decreasing humidity, you need units. And the best thing about having at least one high powered like 35 to 50 litre unit in your house, just tuck it away in the garage if you don't need it often is that when the poop hits the fan like it did with our air conditioning unit, and you end up with a flooded walk in robe, you get all the moisture out of your car, but you get that 50 litre dehumidifier and you close the door and you do that for three days. And you have mitigated what could have been a massive remediation. So act fast know your indoor humidity. And know that no matter what you're dealing with, there is brilliant support and great resources now, so don't panic.

**Ben Adam-Smith** 40:42

Alex, thank you very much.

**Alexx Stuart** 40:43

You're very, very welcome. Thanks so much for having me on the show.

**Ben Adam-Smith** 40:48

Head online to take a look at today's show notes - [houseplanninghelp.com/348](http://houseplanninghelp.com/348), where you can review the main information once again, maybe you've got a comment or you'd like to ask a question. You can do that within the show notes or on social media. We'll give you links and of course, a link to Low Tox Life [houseplanninghelp.com/348](http://houseplanninghelp.com/348). And I said I'll give you an update as well what happened when we got back to the UK. Well, the first thing was when we unzipped our suitcases, Yeah, everything's was smelling of mould. It was ridiculous. We brought it home with us. So we gave it wash doesn't smell a mould now. But James had his cough for it must have been another two or three weeks. I don't know what that says. But that is the conclusion to the story. And then it went, there seems to have been a lot of 100 day coughs around. So maybe we took it out there just felt weird to be in Sydney, beautiful sunshine, nice and warm, and then have this cough all the time. My call to action is to check out The Hub today. This is our membership community that we run alongside House Planning Help packed with resources and we're always adding to it. In fact, we've just added a new live training. Mark Brinkley, author of the Housebuilder's Bible has been our guest and he was talking through his own projects, and because this was a couple of years ago, he was also reflecting on how his latest house build has been. Did he get anything wrong? Would he have done things differently? All of those questions that we love to ask. So if you're one of our hub members, you can check that out. Plus, we've got the in depth video case studies. Ask the Experts our members only forum the courses, [houseplanninghelp.com/join](http://houseplanninghelp.com/join) To find out more. Next time Meredith Bowles, founder of Mole Architect, he's my guest. We're going to be talking about the versatility of timber, different approaches, when to choose them, pros and cons, fire

risk, and a discussion about timber. It's often a default for people who want to build a house as well. We love timber. So that next time! Thank you so much for listening. The House Planning Help podcast is produced by Regen Media: content that matters.