

MOLD In Kids

THIS HANDOUT IS PART OF THE [Mold In Kids Course](#). **THERE'S MORE!** BE SURE TO WATCH THE VIDEO WHERE DR. JILL SHARES ADDITIONAL INFORMATION, INCLUDING APPROPRIATE DOSING FOR KIDS, AVAILABLE ONLY IN THE COURSE.

Kids are not little adults. They're kids! Their bodies are different and they need to be treated differently than adults — and that includes mold.

Any parent knows that not only are kids different from adults, each age and stage of childhood is quite different. These stages need different mold tools as well.

I've divided this handout into the major stages with treatments targeted to that stage. *Talk with your doctor about whether one or more of these is right for your child.*

First, it helps to understand some basics about mold and how it affects us.

16 MOLD FACTS

If you haven't had a chance to read or listen to my book, I encourage you to pause now and watch the video on my website called [Mold Facts You Need To Know](#).

Mold can affect health via:

- mold spores
- spore fragments
- off-gassed chemicals
- mycotoxins

The main point to remember is that mold is trying to move into our bodies.

Mold wants to compost us!

This causes an overall fungal burden or overgrowth all across the body, as well as a toxin burden.

Here are the facts in a short list.

- MOLD...**
- 1** is a survivor
 - 2** has bad gas
 - 3** is a bully
 - 4** invades your body
 - 5** causes toxic breath
 - 6** won't go down without a fight
 - 7** turns you into a wimp
 - 8** causes cravings
 - 9** can make you feel crazy, hazy and lazy
 - 10** causes allergies
 - 11** causes food sensitivities
 - 12** makes you sensitive to chemicals
 - 13** makes you sensitive to electromagnetic fields
 - 14** sickness is hard to identify
 - 15** sickness is often misdiagnosed
 - 16** is part of a scandalous cover-up

IMMUNE EFFECTS IN KIDS

In general, mold weakens immunity. This can lead to more frequent infections, viral infections that linger or become bacterial, and delayed healing of wounds.

Young children don't have a fully developed immune system. One of the branches of their immune system develops over time, as they're exposed to infections. They make antibodies to any new critters they meet. In the meantime, they rely on antibodies they got from mama, but these wane over time.

That means, children rely heavily on the branch of the immune system that they came in with, called the innate immune system. This system utilizes mast cells, the source of histamine.

Mold is one of the most potent stimulators of mast cells and histamine. And because kids are relying more heavily on this branch of the immune system, they'll be more prone to mast cell and histamine issues.

If a teenager was exposed to mold in her younger years, her immune system becomes primed to preferentially choose mast cells as well. This can reverse with treatment.

MOST COMMON SYMPTOMS

Mold shows up a little differently in kids, and symptoms may vary depending on what aspects of mold your child is exposed to.

Spores and fragments typically cause more allergic-type symptoms, whereas mycotoxins typically cause more diverse, neurological, gastrointestinal, urological, and behavioral symptoms.

In a child, the order of appearance of symptoms usually follows this pattern:

- 1st - skin
- 2nd - behavior
- 3rd - gut
- 4th - sinus/throat

The younger the child, the more they tend to follow this pattern.

Common Infant Symptoms ~

Diaper rash	Sensitive skin	Diarrhea or constipation
Rash around the mouth	Fussiness	Congestion
Cradle cap	Colic	Ear infections
Peeling skin	Bloated tummy	Disturbed sleep
Delayed fontanelle closing		

Common Toddler Symptoms ~

Skin rashes	Teething issues	Excessive thirst
Molluscum contagiosum	Stunted growth	Bathroom accidents
Delayed wound healing	Easily winded	Clumsiness
Allergic shiners	Tummy aches	Resists naps/bedtime
Ear infections	Constipation or diarrhea	May feel worse after naps
Delayed developmental landmarks		

Common School-Aged Children Symptoms ~

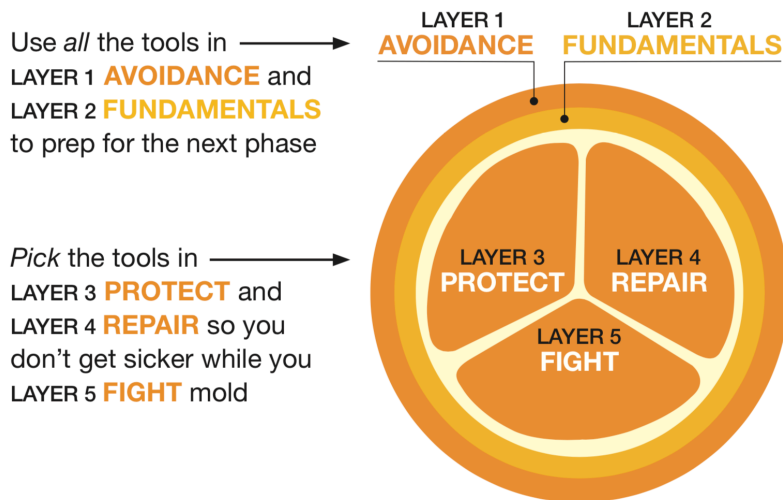
Inattentive	Congestion	Itching and rashes
Hyper or blunted behavior	Nose bleeds, anemia	Reflux
Fatigue/lack of motivation	Delayed dentition	Food allergies
Learning difficulties	Cavities	Nighttime bedwetting
Headaches	Frequent infections	Bad dreams
Allergies	Asthma	Sleep troubles
Exaggerated reactions to bug bites		

Common Adolescent Symptoms ~

Acne	Migraines	Irritable bladder
Fungal rashes	Recurrent strep	Reversed sleep/wake cycle
Weight changes	Mononucleosis	Brain fog
Vision changes	Chemical sensitivities	Sweeping mood changes
Headaches	Irritable bowel	Addictions
Delayed or precocious puberty		

PEEL THE ORANGE

I approach treatment for mold-related illness in a specific order. I developed this over time, working with mold-affected patients. Though this order isn't written in stone, I find that following it reduces unwanted treatment reactions overall.



LAYER 1 | AVOIDANCE

AVOIDANCE is the most important part of conquering mold — at any age! That means getting away from the mold exposure ASAP, then figuring out a permanent avoidance plan.

Many times, kids' immune systems stay triggered even after they're out of the mold.

They often benefit from extra air filtration in their bedrooms and/or in their classrooms. Teachers are quite appreciative of families who bring an air filter to class, because they benefit too.

AIR FILTRATION

The name of the game with air filtration is to reduce particulates, especially ultrafine particulates. Ultrafine particulates are small enough to carry mycotoxins, meaning these particles may be as small as 0.1 microns.

HEPA-rated air filters do not filter down to the level needed to clear mycotoxins.

For all the factors to consider when choosing an air filter, check out [this interview](#).

The important feature *for mold specifically* is a system that zaps the filter so the filter itself doesn't become a petri dish for mold growth. Other filtration needs, such as wildfire smoke, don't necessarily need this added feature, but for mold, it's paramount. For mold air filtration, I choose [Intellipure](#). Use code DrJill for 10% off.

LAYER 2 | FUNDAMENTALS

FUNDAMENTALS include what I call the Health Hokey Pokey; air in, air out(side), water in, water out, food in, and food out. 'Food out' of course refers to poop.

Regular bowel movements are an important part of a mold-healing plan. We get rid of mycotoxins through urine and poop. Poop carries out bile which has packaged up mycotoxins for excretion. If a child is constipated, meaning not having at least 1 BM daily, this level of constipation allows the mycotoxins to be reabsorbed into the body.

I have a rule of thumb.

No binders if you're bound up.

If a child is having less than 1-2 regular bowel movements per day, our focus needs to shift to bowel moving rather than binding. The diet changes below often clear up this problem.

FUNDAMENTALS also include things like maintaining a good sleep schedule, daily movement, hydration, and eating a low-mold, high-binder diet.

LOW-MOLD HIGH-BINDER DIET

Diet is a super-power intervention, and I also understand that it can be hard to control what your child eats. Shoot for 70/30: 70% of the time strive to get it right, 30% of the time assume you won't or can't — then don't stress about it.

Things on the AVOID list either are fungus, grow more fungus, are commonly contaminated with molds or mycotoxins, or induce histamine — any of which make the situation worse for your child.

For binders, food-based binders in the form of insoluble fiber are effective for all mycotoxins. See the list below for options. Steamed kale also functions as a binder.¹

Stronger binders need to be used with caution in kids, as they may cause nutrient deficiencies and affect growth and dental health.

Get creative! Use spices! If you're introducing something for the first time, use teeny-tiny bits at first, then increase slowly over time. Eventually, your child's tastes will adapt.

First Tier Foods To Avoid ~

Sweets of any kind (honey is fine)	Pickles & pickled foods
Dried fruits	Salami & cured meats
Leavened bread	Cantaloupe
Yeast	Grapes
Simple carbohydrates like pasta	Apples
Baked goodies	Aged or moldy cheeses
Mushrooms	Peanuts
Corn	Peanut butter

Beverages To Avoid ~

Any sweetened beverage	Oolong and black tea
Fruit juice	Fermented beverages, cider, kombucha

Better Beverages To Drink ~

Green tea	Herbal teas
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What To Eat To Protect ~

- Colorful vegetables (eat more veggies than fruit) ~
 - Beets, artichoke, asparagus, radishes (helps the liver)
 - Broccoli, Brussel sprouts (detox via sulfurophanes)
 - Tomatoes (lycopene neutralizes mycotoxins)
 - Cabbage (helps your intestines)
 - Celery, cucumber (helps kidneys with water balance)
 - Bitter greens such as arugula, broccoli rabe, endive, watercress, kale, dandelion greens
- Colorful fruits (eat more veggies than fruit)
- Essential fats ~
 - Avocado
 - Olive oil
 - Fresh seeds & nuts

¹ Kahlon TS, Chiu MC, Chapman MH. Steam cooking significantly improves in vitro bile acid binding of collard greens, kale, mustard greens, broccoli, green bell pepper, and cabbage. Nutr Res. 2008 Jun;28(6):351-7. doi: 10.1016/j.nutres.2008.03.007. PMID: 19083431.

Cage-free eggs
 Wild-caught fish (may induce histamine in some)
 Organic butter & yogurt
 Organic beef liver
 Healing spices ~
 Curry with turmeric
 Parsley

What To Eat To Fight Off Fungus ~

Garlic	Scallions
Onions	Chives
Shallots	Leeks

Spices To Use To Fight Fungus ~

Clove	Thyme
Cinnamon	Oregano
Cumin	Basil
Rosemary	Bay leaf
Sage	Tarragon

These well-known kitchen herbs are effective and safe antifungals. They can be measured out and added to food throughout the day.

For dried leafy herbs, try to get up to 4 Tablespoons daily.

For powdered spices, try to get up to 2 Tablespoons daily.

Food-Based Binders ~

**ground seeds give the best binding action, but may not be as easy to get a child to take.*

As a binder, use one or more in a mix, up to 2 Tablespoons ground daily.

Rice bran	Chia seed
Oat bran	Pumpkin seed
Psyllium husk	Sesame seed
Flax seed	Sunflower seed

The rest of the plan below will PROTECT tissues from mold and mycotoxins and REPAIR body systems from their damage, so the child can FIGHT the mold. Here are the purposes of the next layers of Peeling the Orange.

LAYER 3 | PROTECT

PROTECT includes replacing gunky fats with clean, healthy, good fats — think of it like giving the body an “oil change”. It also includes cleansing the skin, supporting the organs of detoxification, and the careful use of additional binders beyond food, only if needed.

LAYER 4 | REPAIR

REPAIR includes gentle detoxification, boosting bioflavonoids, and the repair of gene, cell, immune, and organ damage.

LAYER 5 | FIGHT

The point of the FIGHT layer is to knock back the fungal overgrowth and prevent colonization.

Colonization is when the critters in the moldy building move into you, and you become the moldy building. They can invade your sinuses, lungs, and intestinal tract. Once a strong colony is established, it can delay healing. Colonization is also referred to as biofilm.

The way to prevent colonization is to re-establish microbial order on a daily basis to any susceptible tissue. It's like providing back-up forces for your child's front line. We accomplish this through nasal treatments, gut support, and herbal or prescription antifungals.

INFANTS

Breastfed infants usually fare much better with mold recovery than bottle fed. This has to do with the antibodies in breast milk (see the section above on Immune Effects.) Parents in my practice who are not breastfeeding have found breast milk banks a very useful tool for accessing breast milk for their infant.

In order to produce the most mold-protective breast milk, breastfeeding mamas can focus on eating foods high in:

- good fats (avocado, olive oil, fresh nuts/seeds, cold-water fish)
- bioflavonoids (colorful vegetables & fruits)
- fiber (flax & chia seed, steamed kale, organic whole grains)
- foods that taste bitter (arugula, broccoli rabe, endive, watercress)

The challenge with breast or bottle fed infants is administering the remedies. We need to be mindful to prevent bottle or breast refusal if we add something to the milk that the infant finds offensive.

Formula-fed infants exposed to mold need extra DHA (docosahexaenoic acid, also known as fish oil) and infant-strain probiotics. These can be carefully added in extremely minute amounts to formula, adding only one thing at a time. Use only unflavored sources to prevent refusal.

Skin is the most ideal access route, leaving the bottle for only the yummy things. An infant's skin is like a sponge. This allows us to get the good stuff in, and the bad stuff out, without having to mess with the milk.

Homeopathy is also a useful modality due to its long history of safe use with infants and children. Since it's so diverse and individualized, I don't cover remedies in this handout. I recommend finding a trained homeopath to work with.

BATHS, COMPRESSES & POULTICES

Colic Calming Tummy Compress ~

Fungal overgrowth can cause colic, bloating, and cramping in an infant. Chamomile calms crampy, upset tummies. And while drinking chamomile tea would be perfect, infants often don't like the flavor. So we can put it *on* their bellies instead of *in* them.

Make chamomile tea by steeping a chamomile tea bag in 2 cups of boiling hot water for 5-10 minutes. Remove the tea bag and cool to a temperature that's comfortable to the inside of your wrist. Soak a washcloth in the tea and loosely wring out, leaving much of the fluid in the washcloth. (Keep reserved tea warm on low heat for reheating the compress if needed.)

Apply to baby's entire belly, slipping part of the cloth under the diaper on the front to get the lower bowel where much of the gas builds up. This is safe to be left on for hours, but it does cool down, chilling baby. I recommend reheating the cloth in the warmed, reserved tea every 10 minutes. Be sure to test the temperature again on the inside of your wrist before reapplying on baby's belly.

Gentle Cleanse Peloid Foot Poultice ~

Peloid is a fancy word for mud. There's a special type of therapeutic mud for detoxification, referred to as peloid or moor mud. It may seem odd to use mud to get clean, until you realize that it's the inside of the body we're aiming for. Putting this kind of mud on an infant's feet is a wonderful method to enhance mold chemical detoxification, without harming baby.

For a first application, mix the mud with water to thin the strength at a ratio of 1 part mud to 4 parts water. Apply to the soles of the feet and cover with old socks (will stain socks.) Leave on for 5-10 minutes, then wipe off with a damp cloth.

The strength can be increased to full-strength mud if needed, and the time can be increased to up to 20 minutes, but be careful. This can cause diarrhea. However, constipated infants may benefit from this bowel activation.

Skin Soothing & Antifungal Calendula Bath ~

Calendula is a very soothing, emollient herb. It has anti-inflammatory and lymph moving properties. It's commonly used in children's creams and lotions.

Calendula also has antifungal activity when in the tincture form.² Tinctures are alcohol extracts of herbs and can be drying to the skin, so we wouldn't want to use much tincture on the skin of an infant. Therefore, I mix a combination of Calendula tea with a squirt of tincture to make a skin soothing antifungal bath tea.

Boil 32 oz water, remove from heat and add 1 cup Calendula flowers. Steep x 10 mins.

Strain and cool to a tepid-to-warm temperature. Add to bath basin.

Separately, add 1 tsp Calendula tincture to 4-6 oz water, bring to a boil to burn off the alcohol.

Remove from heat and let cool to a tepid-to-warm temperature. Also add to bath basin and mix.

Soak baby 10 minutes minimum. You may need to add warm water to keep baby comfy.

² Lovecka P, Lipov J, Thumova K, Macurkova A. Characterization of Biologically Active Substances from *Calendula officinalis*. *Curr Pharm Biotechnol*. 2017;18(14):1167-1174. doi: 10.2174/1389201019666180226151910. PMID: 29484986.

OILS & RUBS

Daily oil rubs with organic, neutral oils, such as sesame seed oil or olive oil can help with the “oil change” — replacing toxin-laden body oils with a flood of clean oils.

Coconut Antifungal Body Rubs ~

Coconut is a gentle antifungal. Coconut oil rubs can be used on suspicious rashes and cradle cap, allowing the affected skin to slough away as healthy skin grows beneath. Be sure not to pick at rashes or disturb the skin, let it follow its own timing.

If more support is needed, based on persistent symptoms, we can use stronger methods.

Castor Oil Detox Foot Rubs ~

Castor oil is a stronger detoxifying agent than peloid mud. For babies with severe congestion, skin rashes, or colic and constipation that isn't corrected by Peloid Foot Packs, castor oil can be used.

Test a small area of one foot to make sure baby isn't allergic.

This is used similarly to the Peloid Foot Packs. For the first application, apply a thin layer of castor oil to baby's feet. Cover with old socks (will stain socks) for up to 5 minutes. Wipe off using baking soda water.

The amount of time may be increased to overnight use, but increase very slowly. Too much can cause colic and diarrhea.

POWDERS

Sometimes the skin needs to be dried to prevent fungal overgrowth, especially in the diaper area. For fungal causes of diaper rash, a natural powder can be made with a bit of clay to add some binding properties.

Mix 3 parts arrow root powder with 1 part green clay, mix well or run through a sifter. Put in a salt shaker and use after wiping up from a diaper change. Use lightly, as the clay can cake in skin folds, making it uncomfortable for baby.

IMMUNE SUPPORT

Colostrum ~

Colostrum is one of the yummy things which we can add to formula that infants rarely refuse. It helps by supplying antibodies that breastfed babies get in breast milk.

Start with a few flecks of powder in one bottle and slowly increase as needed. Use up to 1/8 tsp per day.

Sunshine ~

Yes, infants need sunshine . . . especially those who had maternal mold exposure, who incidentally tended to have had jaundice. This is due to the mycotoxins' effect on liver metabolism.

A safe way to soak baby in sunshine is to find a sunny space near a window that can open — not for the air exchange necessarily, but for the direct rays, unfiltered by the glass. Unwrap baby down

to the diaper and lie in the sun's rays for 5-10 minutes. This is a great opportunity to sneak in a diaper change, and can be repeated at each diaper change.

Monitor baby's skin for tanning or burning and pause sun exposure if these are seen. Be cautious of chilling baby. Sunning baby on your own bare skin will help him keep warm, and then mom or dad gets some needed sunshine too.

WHOLE-BODY ANTIFUNGALS

The most efficient way to administer antifungals to an infant is via mama's or the breastmilk donor's milk. Herbs taken by mama or donor such as holy basil, rosemary, and thyme in doses discussed in my book produce milk that's tolerated by most infants.

While they're excellent antifungals, I generally recommend avoiding garlic and oregano oil, as these often cause gas in baby.

Breastfeeding women should avoid using the herb from my book, called Pau D'Arco, as it has not been proven safe for breastfeeding.

INTRANASAL ANTIFUNGAL

The best intranasal remedy for infants is breastmilk. Drop 1-2 drops inside each nostril up to 3 times daily. The best time to sneak this in is at the end of a feeding.

TODDLERS

The challenge with toddlers is what's called the "myself stage." They want to do it "MYSELF!" As you try the ideas listed here, remember that toddlers tend to be much more compliant if they're involved in the process, the preparation, the list checking, etc.

As their age in months stacks up, their maternally-acquired antibodies slowly reduce to make room for their own acquired immunity, built by being exposed to infections and toxins. This takes some time to develop, so toddlers often need more antimicrobial support than when they were an infant to keep allergies, histamine, and ear and other infections at bay. We also focus on the nutritional needs of their developing brains.

Homeopathic teething tablets are an indispensable tool for tired, fussy toddlers.

BINDERS

For binders, use one or more of the insoluble fibers listed in the diet section above *as long as it doesn't cause constipation*. If it does, work on pre-binders with your child's doctor to get bile moving.

HERBS & SUPPLEMENTS

DHA ~

The best brain protector from mold exposure is the fish oil DHA, or docosahexaenoic acid. It's a mold-specific neuroprotective, meaning it protects the brain, brain barrier, and nerves from

mycotoxin damage.³ It also protects the kidneys, and reduces inflammatory markers related to histamine release.

Elderberry ~

Black elderberry is a tried and true immune boosting herb that can be made into a delightful syrup that kids are happy to take. Many parents report that their kids ask for it. It's safe to use with very young children.

Stinging Nettles ~

Stinging nettles are a secret weapon against histamine. They stabilize the mast cells (the cells that make histamine and other inflammatory molecules) so they don't spill their contents as easily. Nettles also block histamine receptors, thereby reducing allergic reactions.⁴ They're also incredibly nutritious, eaten as a staple green in many parts of the globe.

My favorite way to get Nettles into toddlers is with Nettle Lemonade. Check out [this video](#) to learn how to make it.

(*Note that this is one herb where you don't want your toddler's help. They're called stinging nettles for a reason. If handling fresh nettles, use gloves.)

Chamomile ~

Another herbal tea that assists with multiple mold-related issues is Chamomile. Chamomile calms—period . . . calms tummies, rashes, growing pains, and overall agitation. It has a mild bittersweet flavor that induces bile production (the fluid we use to detox mycotoxins). Chamomile also has mild antifungal activity.⁵

Mint ~

Mint is a favorite with toddlers, and it's useful to prevent the build up of biofilm that can happen with mold exposure.⁶ Mint can be used as a tea, or a few drops of mint essential oil can be added to beverages.

EAR COMFORT OIL

Mullein and garlic ear oil can help to soothe achy ears and prevent fungal ear infections. My favorite is from [Wise Woman Herbals](#).

WHOLE-BODY ANTIFUNGALS

For picky eaters, we can use the soles of the feet to administer antifungals that don't pass the taste test.

³ Jia Q, Zhou HR, Bennink M, Pestka JJ. Docosahexaenoic acid attenuates mycotoxin-induced immunoglobulin a nephropathy, interleukin-6 transcription, and mitogen-activated protein kinase phosphorylation in mice. *J Nutr*. 2004 Dec;134(12):3343-9. doi: 10.1093/jn/134.12.3343. PMID: 15570035.

⁴ Roschek B Jr, Fink RC, McMichael M, Alberte RS. Nettle extract (*Urtica dioica*) affects key receptors and enzymes associated with allergic rhinitis. *Phytother Res*. 2009 Jul;23(7):920-6. doi: 10.1002/ptr.2763. PMID: 19140159.

⁵ El Mihyaoui A, Esteves da Silva JCG, Charfi S, Candela Castillo ME, Lamarti A, Arnao MB. Chamomile (*Matricaria chamomilla* L.): A Review of Ethnomedicinal Use, Phytochemistry and Pharmacological Uses. *Life (Basel)*. 2022 Mar 25;12(4):479. doi: 10.3390/life12040479. PMID: 35454969; PMCID: PMC9032859.

⁶ Stringaro A, Colone M, Angioletta L. Antioxidant, Antifungal, Antibiofilm, and Cytotoxic Activities of *Mentha* spp. Essential Oils. *Medicines (Basel)*. 2018 Oct 21;5(4):112. doi: 10.3390/medicines5040112. PMID: 30347861; PMCID: PMC6313564.

Rubs designed as warming chest rubs often have antifungal aromatic herbs in the mix. They can be used on the feet at night to get these powerful plants into little bodies. My favorite is Now's Chest Rub Relief.

Holy Basil & Pau D'arco make tasty teas that can be enjoyed warm or cooled as iced tea. These are safe to use daily long term.

INTRANASAL TREATMENTS

It's not yet time for nasal *sprays*, because a toddler's sinuses are still developing. Often we can achieve intranasal microbial balance by simply supporting the beneficial microbes in the gut and the nares of the nose.

Probiotic Nasal Swabs ~

Probiotic nasal swabs are a nice choice for younger children who aren't ready for nasal sprays. They can be used once or twice daily to repopulate the good guys. Brands that use the strain most researched for sinus health are NasoBiotex and Lanto Sinus.

These can be mixed per the manufacturer's recommendation and swabbed inside the child's nares.

Sometimes, the probiotics alone aren't enough to get the flora balanced again after mold. Then we add antifungal therapy employing the help of therapeutic aromatherapy to deliver the antifungal aromas.

Essential Oil Pillow ~

We can treat a toddler while he sleeps by treating his pillow with essential oils, if tolerated. Stuff 2-4 cotton balls soaked with 10-20 drops of essential oils inside the pillowcase. Oils will fade over time and will need to be re-applied.

The following essential oils have been shown to be effective against mold:

Cedar	Cumin	Frankincense
Rosemary	Tea Tree	Eucalyptus
Ajwain	Thyme (red or white)	Pine
Holy Basil	Cloves	Citrus (lemon, orange, grapefruit)

Some brands I trust for essential oils are Snow Lotus, Mountain Rose Herbs, Pranarōm, Aura Cacia, and Young Living.

SCHOOL-AGED CHILDREN

The challenge with school-aged children is taste, texture, busy schedules, and that they start to wise up to the fact that you're adulterating their food with supplements. Parents have to get even more stealth in hiding things in food.

My suggestion is to plan ahead for their ultimate refusal and prep 2-3 different things that work, so you have backup. Also make sure to add things in smaller amounts at a time.

Things get much easier when a child can swallow pills, but don't rush this. One bad experience can delay swallowing pills for years.

School-aged children get continuously immune challenged between infectious exposures at school and at their various activities. Many schools are also moldy. Therefore the focus is immune support including managing histamine, binding, detox, and bioflavonoids.

BINDERS

For binders, use one or more of the insoluble fibers listed in the diet section above *as long as it doesn't cause constipation*. If it does, work on pre-binders with your child's doctor to get bile moving.

IMMUNE

Vitamin D ~

Vitamin D is the most important immune nutrient when it comes to mold. As if mold knows that Vitamin D is its kryptonite, mold blocks our ability to absorb it. Mold-affected people need emulsified or liposomal forms to avoid mold's blockade. Other forms seem to go in one door and out the other, never increasing lab values. Whereas liposomal Vitamin D requires a smaller dose to get big improvements.

Elderberry ~

Immune boosting Elderberry syrup can be used in children of all ages. It's helpful as both a preventive, and in higher doses as a treatment during illness. Many parents report that their kids ask for this remedy. It's also safe to use with very young children.

Histamine ~

Herbs such as Nettles and Perilla are very helpful for hayfever and other allergic symptoms, while being very safe to use in kids.

Nettles are also a natural source of Quercetin.

BIOFLAVONOIDS

Quercetin ~

Quercetin is a bioflavonoid, which means it's colorful. The colorful part of plants are the most beneficial for mold recovery. Quercetin has an affinity for the sinuses, gut, and bladder, and is great for those who have significant allergy symptoms during their exposure. It was shown to be cytoprotective, meaning protecting cells, when exposed to certain mycotoxins.⁷ A great mold-fighting food source of quercetin is onions.

Resveratrol ~

Resveratrol needs to be supplemented to get the effects we're after. It has a minimum effective dose of 1000mg daily. After a few weeks and symptom improvement, the dose can be weaned down. In my experience, liquid forms work better than capsules. Dose adjust for kids by weight according to Clark's Rule (see Appendix.)

⁷ Ramyaa P, Krishnaswamy R, Padma VV. Quercetin modulates OTA-induced oxidative stress and redox signalling in HepG2 cells - up regulation of Nrf2 expression and down regulation of NF-κB and COX-2. *Biochim Biophys Acta*. 2014 Jan;1840(1):681-92. doi: 10.1016/j.bbagen.2013.10.024. Epub 2013 Oct 24. PMID: 24161694.

DETOX

Turmeric ~

Turmeric is a spice commonly used in yellow curries. It's a good option for mold because it's a bitter, meaning it promotes detox, but also anti-inflammatory to the gut, brain, skin, and joints

WHOLE-BODY ANTIFUNGALS

Monolaurin is an antifungal and immune supportive compound from coconuts that's safe to take daily. It contains an antifungal acid called caprylic acid.

Holy Basil & Pau D'arco make tasty teas that can be enjoyed warm or cooled as iced tea. These are safe to use daily long term. Holy Basil tea mixes well with lemonade for an option to try if straight tea is refused.

Oil of Oregano can be used for kids who need stronger antifungal support.

INTRANASAL TREATMENTS

Probiotic Nasal Swabs ~ (covered above in the Toddler section)

Probiotic nasal swabs are a first step to normalizing the sinus flora in a mold-affected kid. If school is a suspected exposure location, this can be used safely daily to prevent biofilm formation.

Essential Oil Inhaler Sticks ~

Essential oil inhaler sticks are a pleasurable way for kids to take a therapy. They smell good and lift the spirits. That's all well and good, but the biggest thing they do is knock back fungal overgrowth and biofilm in the sinuses. These can be used safely multiple times daily, and are best used before bedtime for kids whose sinuses congest at bedtime.

Nasal Sprays ~

For older school-aged children with significant sinus symptoms, homeopathic nasal sprays can be used up to 3 times daily. Propolis is a good nasal spray option for kids who need additional allergy support.

ADOLESCENT

Adolescents bring their own unique experience to mold-related illness. Their main challenges are sweeping hormone changes, skin and hair problems, low immunity, and social pressures. Parents work through issues with compliance, taste aversion, added toxicants, and circadian rhythm disharmony.

Enter the era of body care products—perfumes, lotions, acne treatments, mouthwashes, and makeup. These are laden with chemicals that can further tax the organs of detoxification which are already behind the eight ball from mold exposure. My tip for parents is to dilute all of these products as much as possible with natural substitutes. You still do the shopping. It's quite easy to replace the liquid in the old "branded" bottle with something you choose before you bring the products into the house without anyone knowing. ;)

Body odor is a real concern, especially if the hormones are pulled out of balance from mold. Reassure your teen that eating stinky foods will reduce stinky body odor—foods that smell stinky, such as broccoli, cabbage, kale, garlic, onions, eggs, and fish have a compound called sulfurophanes which assist the liver in balancing hormones, thereby balancing body odor. Teens who get garlic breath may need a little Molybdenum to improve garlic intolerance.

CIRCADIAN RHYTHM REINFORCEMENTS

Simply telling a teen affected by mold to go to bed and wake up earlier is not enough. Their circadian rhythm of day and night gets flip-flopped. They usually need supplemental assistance.

That means Vitamin D and Green Tea in the early morning and Melatonin in the early evening.

I cover Vitamin D above in the School-Aged Children section. What I didn't mention there is that Vitamin D is the nutrient we get from the sun. It's technically Vitamin Sunshine! It helps us feel more awake and aware. The closer to sunrise that a teen takes her Vitamin D, the more effective it is for both resetting the circadian rhythm and boosting immunity.

Melatonin protects the brain and organs of detoxification from mycotoxins. It also promotes regular daily bowel movements, which helps clear up skin.^{8,9}

Melatonin should be taken by teens at dinner time, not at bedtime. It takes a number of hours for melatonin to take full effect, so we can easily miss the window of opportunity for sleep if we wait to take it at a teen's bedtime. And if the window of opportunity for sleep is missed, the teen can then easily stay up into the wee hours of the morning—making the next day a bear of a teen on your hands and sapping her immunity.

Take special caution with Melatonin doses in kids and teens. Doses should stay below 3mg per day to prevent the possibility of delaying or affecting puberty.

IMMUNE

Probiotics ~

Clearing up skin may require a daily spore-based probiotics. Spore-based probiotics do a better job than other probiotic types at helping the body rebalance itself after mold. Rather than repopulate, they travel through, establishing order and balance as they go.

Proceed very slowly with these. They can cause a die-off of the unsavory characters, which can leave your teen with a headache or feeling fluey. Start with opening the capsule and sprinkling just a bit on food, using 1 capsule over 2 weeks. Slowly increase the amount until 1 capsule daily is tolerated.

Astragalus ~

Astragalus not only helps with energy, it also boosts the part of the immune system that teens in particular struggle with. It speeds healing from infections that tend to linger such as mononucleosis.

⁸ Meki AR, Hussein AA. Melatonin reduces oxidative stress induced by ochratoxin A in rat liver and kidney. *Comp Biochem Physiol C Toxicol Pharmacol*. 2001 Nov;130(3):305-13. doi: 10.1016/s1532-0456(01)00248-4. PMID: 11701387.

⁹ Meki AR, Abdel-Ghaffar SK, El-Gibaly I. Aflatoxin B1 induces apoptosis in rat liver: protective effect of melatonin. *Neuro Endocrinol Lett*. 2001 Dec;22(6):417-26. PMID: 11781538.

DETOX

For detox in teens, I prefer to use plants versus specific nutrients to get a broader action and to have less of an effect on puberty. Monitor your teen's puberty stages carefully if using specific detox nutrients like glutathione, ALA (Alpha Lipoic Acid), or NAC (N-Acetyl Cysteine).

Green tea ~

An all-around mold helper is green tea. It protects the organs of detoxification, while also protecting the cells, even certain immune cells, from the damaging effects of mycotoxins.¹⁰ My patients find help with puffiness and weight gain, as well as improved energy. And as if that's not enough, it's also a gentle antifungal that won't cause flares because the mold doesn't feel alarmed by it. All that in a tasty cup of goodness. Caffeinated and decaf both work against mold, but the caffeinated version in the morning can help with circadian rhythm reinforcement. Aim for 2-4 cups daily for detox.

Milk thistle ~

Milk thistle protects the detox organs and expands their ability to handle the chemicals of teen body care products.^{11,12} Milk thistle helps us make natural glutathione, and modulates the pace of detox so it doesn't go too fast to cause a dump of toxins and cause headaches or a skin breakout.

Milk thistle requires a minimum daily dose to see the effects we need. Dosing 750mg of organic milk thistle seed powder daily. Milk thistle is safely taken up to 1500mg daily to rid the body of the toxic effects of mold. Dose adjust for teens by weight according to Clark's Rule (see Appendix.)

Green Clay Baths ~

Not every detox remedy needs to be taken by mouth. Green clay is very effective as a bath, without the risk of causing nutrient deficiencies when taking it orally.

Clay is also helpful to clear up the skin and reduce body odor. Be warned, the first few baths may pull stored impurities to the surface, so save the first few baths for a time when the next day or two are safe for a breakout of "backne" or body odor. After that first depurification phase, clay baths work to prevent or heal up a breakout, and reduce body odor.

WHOLE-BODY ANTIFUNGALS

The wonderful thing about teens is that they have strong enough self will and taste aversion that they will take pills much more willingly than powders or liquids. This makes choosing remedies so much easier.

Antifungal herbs that are safe to use daily and long-term with teens are Olive Leaf, Thyme, Spilanthes, Pau D'arco, Rosemary, Monolaurin, and Clove.

Olive Leaf is particularly effective against the virus that causes mononucleosis.

¹⁰ Sugiyama K, Kinoshita M, Kamata Y, Minai Y, Sugita-Konishi Y. (-)-Epigallocatechin gallate suppresses the cytotoxicity induced by trichothecene mycotoxins in mouse cultural macrophages. *Mycotoxin Res.* 2011 Nov;27(4):281-5. doi: 10.1007/s12550-011-0105-8. Epub 2011 Jun 29. PMID: 23605930.

¹¹ Al-Anati L, Essid E, Reinehr R, Petzinger E. Silibinin protects OTA-mediated TNF-alpha release from perfused rat livers and isolated rat Kupffer cells. *Mol Nutr Food Res.* 2009 Apr;53(4):460-6. doi: 10.1002/mnfr.200800110. PMID: 19156713.

¹² Kostek H, Szponar J, Tchorz M, Majewska M, Lewandowska-Stanek H. Syllibinina i jej dzialanie hepatoprotekcyjne z punktu widzenia toksykologa [Silibinin and its hepatoprotective action from the perspective of a toxicologist]. *Przegl Lek.* 2012;69(8):541-3. Polish. PMID: 23243923.

Stronger antifungal herbs can be used in a pulsed fashion for an added antifungal hit, such as Neem, Oil of Oregano, and Old Man's Beard.

For an all-around mix, I turn to [MycoDefense](#). It's a well-formulated blend of antifungal herbs that's very well tolerated with low side-effects.

Thyme is used as a mouthwash for bad breath and to prevent dental carries. You probably already know this if you use Listerine.

INTRANASAL TREATMENTS

Essential Oil Inhaler Sticks ~

Essential oil inhaler sticks have become very popular with teens. It's become somewhat of an art to mix different blends. Make sure to choose essential oils that knock back fungal overgrowth and biofilm in the sinuses (listed above in the Toddler section, Essential Oil Pillow.)

These can be used safely multiple times daily, and are best used before bedtime for teens whose sinuses get congested when they lie down.

Nasal Sprays ~

With the high prevalence of chronic strep in teens exposed to mold, we engage the help of both antifungal and antibacterial nasal sprays, alternating one in the morning and one before bed.

For teens that don't tolerate nasal sprays, we can also use a low-EMF essential oil diffuser in their bedroom at night.

That's a wrap!

Please note that many of these tools can be used in kids of all ages. Anything mentioned in a previous age/stage can be added to the next level of age/stage, but not necessarily in reverse. In other words, we wouldn't use Pau D'arco in an infant, but we may use Colostrum in a School-Aged Child.

Before we go, I have to say one more thing.

*AVOIDANCE is still the key.
This has to be said, repeatedly.*

For brand recommendations, doses, how-to's, and directions, check out my course [Mold In Kids](#).

And if you find yourself stuck in a moldy place for a time, take my course called [Still In Mold](#) to learn the things you should and shouldn't do, so you can heal faster after leaving the exposure.

Best of luck as you [BREAK THE MOLD!](#)

APPENDIX

Clark's Rule

Doses provided are typical adult doses that I use with my patients. Before giving remedies to children, I adjust the dose by weight according to Clark's Rule.

Clark's Rule assumes that a typical adult dose is based on a man who weighs 150 pounds (or 68 kilograms.)

To adjust a dose for a child between 2 and 17 years old, we apply Clark's Rule.

Clark's Rule:

First, divide the child's weight in pounds by 150 (or the child's weight in kilograms by 68.)

Find the fraction or decimal, whichever makes it easier to make sense of liquid vs capsule.

Then multiply the fraction or decimal by the typical adult dose to find the child's dose.

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