

Detoxing new clothes for people with chemical sensitivities



Making clothes tolerable is a common problem for people with chemical sensitivities. We provide a catalog of things to try, both for people with mild and severe sensitivities.

Keywords: clothes, clothing, detox, break in, washing, laundry, MCS, chemical sensitivity

Tolerating clothes

People with chemical sensitivities (MCS) often have trouble tolerating new clothes, and sometimes even old clothes. The problem can be breathing in the fumes from the clothes, or a skin reaction from touching the material.

The heat from our bodies help the chemicals in the clothes to become airborne.

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Clothes can give off a wide range of fumes from:

- The fabric material itself
- Chemicals used to treat the fabric
- Chemicals used to clean the garment
- Chemicals absorbed by the garment while worn

There are literally thousands of chemicals that may be found in a garment. We cover this issue in more detail in another article, which is available through a link at the bottom of this article.

Detoxing clothes

Whether you are trying to detox a new garment or one you have owned for a while, the process is the same. Be aware that some clothes simply cannot be detoxed. The chemicals are too strongly embedded and the garment will fall apart before it becomes free of the noxious chemicals.

In our experience, clothes treated with dryer sheets are particularly tough. (Dryer sheets are added to the load in a clothes dryer. They are not widely available in Europe and Australia.)

How much effort is needed depends on the person. Most people with chemical sensitivities have the mild version and won't need to do much. The unlucky few with severe MCS may have to do much more. This article covers both cases.

You'll need a clean machine

It is best if you have your own washing machine, or if you share it with others that they use all use detergents you tolerate. Avoid any sort of fabric softener.

Choosing a detergent

Non-toxic detergents tend to be less effective at cleaning clothes than the toxic types. Even among the non-toxic detergents there are differences.

The one we use daily is very mild – too mild for breaking in new clothes.



When we detoxify new clothes, we use a stronger detergent than we can actually tolerate in normal washing. Then later on we wash it out. In our case, we use Seventh Generation as our detox detergent, but never for daily washing.

If the clothes are musty, try with borax. Make sure to double rinse, as it is alkaline and residue can cause skin irritation.

Be careful mixing detergents, as some of them may neutralize each other. If you want to use multiple detergents, it may be better to use them one at a time.

Caution about silk

Silk garments are very sensitive to strong detergents, which may ruin the material. We have no experience with silk ourselves and cannot advise what detergents to use.

Washing several times

Most people with chemical sensitivities simply need to wash a new garment five to ten times in a washing machine. Then it is fine to wear.

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Scientific experiments show that ten washings typically remove about 60% of the chemicals in a garment (KemI, 2014).

If ten washings are not enough then it is time to look at other methods. Just keeping running the washing machine has less and less effect. It will be costly in water, electricity, detergent and especially wear of the machine. Also, the garment will fade and start to tear. We've seen people wash a garment until it was ragged before it was tolerable.

Soaking

If ten washings are not enough, then try soaking instead. It works best if done with a lot of water. A large cooking pot is still too small.

You can use an American-style top-loading washing machine, or buckets. We prefer using a 50 gallon (190 liter) steel trash can that sits outside, next to an outside faucet.



A fifty-gallon (190 liter) steel trash can used for soaking new clothes.

We put one or two garments in the can, fill it up with water and add detergent. Then let it sit for 48 hours, drain and refill again. We do this for two weeks. At the end we use a milder detergent to wash out the stronger detergent, and one 48 hour

session with clean water alone. Finally we wash the garment a couple of times in the washing machine.

This works even for jeans, which are the most toxic garments we use.

We ONLY do this soaking in the warm months. It is essential that the water is heated by the sun and stays warm all day. Soaking in cold water does not work.

Some garments trap a lot of air in them, so they rise to the surface. Use clean rocks or bricks to weigh them down.

Soaking in milk

Milk can absorb some chemicals that are hard to get out with detergents. This is done by the milk fat which absorbs chemicals that are fat soluble, so it is important to use whole milk or at least not low-fat milk.



Evaporated non-low-fat milk can work in some cases.

The soak just needs to be a solution of milk, not pure milk. But the more milk the better. Use a small bucket or steel stock pot and be sure to stir regularly so all parts are kept immersed.

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Milk will sour after several hours. If you want to soak overnight, it is best done in a refrigerator. But the cold milk absorbs less than warm milk.

Wash the milk out immediately afterwards to avoid the garment smelling sour.

Other soaks

Sometimes it can help to soak the garment in regular table salt (sodium chloride). We used sea salt that appeared to be less contaminated.

Some people have had good luck soaking clothes in vinegar. Vinegar is lightly acidic, so it can work well to neutralize chemicals that are alkaline. Just check up on what the vinegar is actually made from, as that can vary widely.

Airing out new clothes

It is possible to detox new clothes by airing them out for a long time on a clothesline. Expect it to take about six months.

Make sure to turn the clothes inside out so the sun won't fade the coloring as much.

Use a clothesline that is protected against rain, such as under a carport. Otherwise, the clothes will become moldy.

This method will not work in cold weather.

Boiling clothes

Boiling the clothes are more powerful than soaking or washing, but it also tends to damage the fibers.

Boiling **MUST** be done outdoors. Do not try to do it inside. The toxic fumes will be overwhelming.

Use the biggest pot you can find and put just one clothing item inside. You can use a portable electric hot plate or a propane camping stove (they are okay outdoors if you are careful).

Soften the water with some mild detergent, baking soda or sea salt.

There are opposing viewpoints on whether to keep the lid on the pot. One side says keeping the lid on raises the temperature and evaporates less water (less mineral buildup in the clothes). The other side says keeping the lid off makes it easier for chemicals to evaporate out of the pot. We suggest keeping the lid on, there is still plenty of evaporation going on.



Boiling clothes using a propane camping stove.

Make sure all parts of the garment are under water. You can use a large serving spoon or a stick for this, but not one you also use for food. A few small rocks works even better to weigh the garment down.

Some people boil up to five hours at a time, but be sure to change the water every hour or so.

Don't use a pot you also use to cook food in.

Put the clothes in the pot before you turn on the heat, not after it boils.

Do it on a calm day or in a place out of the wind. Wind will dramatically increase the heat loss, so the pot may never boil.

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The heat tends to destroy elastics in socks and some pants. They may still be usable with a belt or as loose socks.

When done, rinse the garment outdoors in a bucket. Do NOT put it in a washing machine, as it can contaminate the machine and stink up the room.

Pressure cooker

An even stronger method is to boil the clothes in a pressure cooker. The water will be hotter than in a regular cooking pot, as the pressure raises the boiling point.

If you live at high elevation water boils at a lower temperature than at sea level, and thus a regular cooking pot won't be as hot.



A large pressure cooker used to detox clothes. It needs a hefty propane burner to get hot.

This high heat is very hard on the fibers and especially damaging to elastics.

If you use a large pressure cooker an ordinary electric hot plate may not produce enough heat, especially in cool or windy weather.

If no success

If you've tried the methods listed above, without success, then there are more things to try and consider.

It may be that the clothing item is beyond hope. This is common if it has been treated with some types of fabric softener that have become embedded in the fibers, or if it is moldy.

It may be that the detergent you use is a problem. Try to wash a few times without any detergent to rinse out the residue more. Consider washing with a mild detergent to get a harsher detergent out.

We have seen one case where the water itself was the problem. The minerals in the water can leave an irritating residue in the garments, especially with well water. Try to soak and rinse the clothes with water from another source. Try reverse-osmosis or distilled water for a while to see if it helps, as they have very low mineral levels and no chlorine. If it does help, then try to find a cheaper source of water, or look at filtering your own water. If you live in a rented space, you can install a filter on the water hose to the washing machine.

More information

For other articles about less-toxic clothes and laundry, see www.eiwellspring.org/copingwithEI.html.

2021

References

KemI. Chemicals in textiles – risks to human health and the environment (report 6/14), Swedish Chemicals Agency (Kemikalieinspektionen, KemI), 2014.