

## Keep medicine mighty with smart storage

Drugmakers take great care to make medicine with a goal of making you feel better. Now, here's the request of people like Brian Laird, PharmD, a pharmacy manager with OSF HealthCare: properly store your pills, patches and vials so they work the way they should.

Laird says if medication is not stored properly, its potency will be impacted.

"Potency basically means how strong the medication is," Laird explains. "When [the medication] is manufactured, they test it to make sure it is what it says on the bottle. Just like a household cleaner or food. If you say it's 5% something, then it gets diluted, it's no longer 5%. If you water down a cleaner, it's not going to clean as well. If you water down a medication, same thing."

Here's a checklist of dos, don'ts and best practices:

- Avoid storing medicine in the bathroom. Fans and open windows can help, but the humid conditions can impact the tiny objects.

"You may have a small bathroom, especially one that gets super steamy when you take a shower or bath. If there's an additional place where you can store medication, it might be preferable to one that's hot and humid," Laird says.

"[Humidity] can actually get into some of those pills and start to break them down," Laird adds. "Think about when we swallow something. It goes into your stomach. It's liquid in there. That's what helps to start the process of being absorbed into the body. If you add moisture or liquid to [the pill], it's going to start that [breakdown] too early. It loses that potency."

- Keep your medicine away from light sources (both natural like a window and artificial like a light bulb) and heat or cold swings (like an oven or leaving medicine in your mailbox for several days). The light and temperature can affect things. Standard room temperature is fine, Laird says.
- Don't dump all your medicine into a plastic bag or leave it loose on a counter and remember which ones to take when.

"[Telling yourself:] remember to take the blue one every day," for example, Laird says. "That's not a good idea."

- Don't leave your packaging open and sitting around. For example, don't leave the top off a pill bottle. The light, temperature and humidity can affect the pills. Plus, people who don't use the pills may find and ingest them, leading to possible life-threatening consequences.
- Look at the label for special storage instructions. Insulin, for example, is typically refrigerated. Or the label may call for the item to be out of the fridge to start, then stored in the fridge later.
- Some containers come with a cotton ball, silica packet or small sphere inside to help with humidity or to prevent things from breaking. You don't have to rush to remove these items. In fact, the silica packet and humidity-absorbing sphere don't need to be removed at all. You can throw away the cotton ball when you open the container for the first time.

"Sometimes, people will lose pills in the cotton ball. Before you throw it away, make sure nothing is accidentally trapped inside it," Laird suggests.

- If you notice your medicine is broken or has changed color or texture (for example, a pill is softer or a liquid is frozen), don't ingest it. Call the pharmacy who gave you the medication.

"They will be the best ones to guide you through that process," Laird says. "It might be fine. You might need a new prescription. Either way, they're going to be the experts."

- Some final common-sense advice: store your medicine safely but in a handy place.

“Medication doesn’t work if you don’t take it,” Laird says matter-of-factly. “So, if you forget [to take it] because it’s out of your routine, it’s not going to be effective. It’s better to have it in a place that’s less than ideal, but you take it than the ideal storage location, but you never remember to take it.”

Pill boxes labeled by day are a good example of proper storage, Laird says. Removing medicine from its original packaging for a week won’t significantly impact their potency, he says. Or keep the medicine in its original packaging. For example, Laird says some pill bottles are tinted orange for a reason. It keeps light from damaging the pills. Try taking either route while having a designated medicine drawer in your kitchen.