

# Explaining the dangers associated with drug to drug interactions.



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In your mind's eye, picture an old-fashioned balance scale. Every time you take a medication of any kind, you place a box marked 'benefits' on one side, and weigh it against a box labelled 'risks' on the other. For instance, say you're an overweight 50-year-old man with high cholesterol and blood pressure, and your doctor prescribes a daily low-dose Aspirin. On the plus side, there's a sizeable drop in your chances of having a heart attack which far outweighs the slim possibility that the drug might trigger bleeding in your stomach or intestine.

Unfortunately, this kind of mental calculation isn't quite so simple for the estimated one in 100 Canadians living with schizophrenia.<sup>1</sup> It's not that the benefits of anti-schizophrenia medications aren't at least as great as those of low-dose Aspirin (they are), or that the risks are necessarily any greater. The problem comes down to predictability. Because schizophrenia often goes hand in hand with other chronic health problems, it's common for people with the disease to be taking multiple medications—and the more medications a person takes, the greater the odds they will interact in unexpected ways. On the other hand, by working closely with your health care team, you can maximize the benefits of anti-schizophrenia medications, while shrinking that 'risks' box to the smallest size possible.

But before we discuss how to do that, let's briefly go over the benefits of treatment. If you or someone you love is living with schizophrenia, no doubt you already know what a terrible toll it can take. The disordered thinking the disease causes can interfere with virtually every aspect of a person's life—from holding down a job and maintaining close relationships to taking the necessary steps to stay healthy. Many affected individuals, up to 80%, abuse substances like alcohol and other drugs in an attempt to

numb their emotional pain.<sup>2</sup> As a result, people with the disorder run a greatly increased risk of ending up in prison or becoming homeless.<sup>3</sup> They're also far more likely than those with other mental disorders to die prematurely due to suicide,<sup>4</sup> accidents,<sup>5</sup> and even preventable complications of diseases like respiratory infections.<sup>6,7</sup> On the other hand, the appropriate treatment can not only prevent this downward spiral, it can make the difference between living a full, satisfying and productive life, and one marred by loneliness and despair.

Now, let's look at the other side of the scale—the potential risks. When it comes to anti-schizophrenia medications, there are several factors that can add unnecessary weight to the 'risk' box in unpredictable ways. Sometimes, the shift in balance decreases the effectiveness of the medication, making relapse more likely. It can also cause unpleasant side effects, or aggravate one of the other health problems that are often linked with schizophrenia. Happily, it's possible to prevent most of these things by carefully choosing the right anti-schizophrenia therapy. All it takes is a little knowledge about how schizophrenia, associated conditions, and the drugs used to treat them can all interact.

First of all, anti-schizophrenia medications can interact with other drugs. Nicotine, for example, is important consideration, since about 85% of people with schizophrenia smoke.<sup>8</sup> Smoking speeds up the breakdown of certain anti-psychotic medications by up to 30%.<sup>9</sup> When the levels of these medications seesaw up and down, they don't work as effectively, or as predictably, as they should. The result? The therapy may not keep the disease in check.

Other drugs have the opposite effect—slowing down the breakdown of certain anti-schizophrenia medications.

This can cause the latter to build up in the blood, thus increasing the odds of side effects. For instance, when the antibiotic erythromycin is taken in combination with a certain anti-schizophrenia drug, levels of the latter soar as much as 70%.<sup>10</sup> This medication overload can cause agitation, a racing heartbeat and, sometimes, even fatal overdose.<sup>11</sup> Something similar can happen when a smoker whose symptoms have been well controlled by a particular anti-schizophrenia medication decides to give up cigarettes. Levels of the medication climb, causing problems like drowsiness, dizziness and constipation. And even these non-life-threatening side effects can have serious fallout. Research shows people are much less likely to stick to treatment when they experience such unpleasant, undesired consequences from taking anti-psychotic medications, and stopping treatment greatly increases the likelihood that the schizophrenia will relapse and that symptoms will return.

Sometimes, anti-schizophrenia medications react not with other drugs, but with chronic health conditions that are linked with the disease. For instance, schizophrenia already doubles the odds of obesity and diabetes,<sup>12,13</sup> both of which sharply increase heart attack risk. Some antipsychotic medications can cause weight gain, which increases the risk even further. Certain anti-schizophrenia medications can also boost blood levels of damaging blood fats like 'bad' cholesterol and triglycerides, which also increases heart attack risk.<sup>14</sup> Hepatitis C is another example. People with schizophrenia are nearly 100 times more likely than the average person to be infected with this virus, which itself places them at risk of liver damage.<sup>15</sup> Because many medications (including most anti-schizophrenia drugs, alcohol, nicotine and caffeine) are broken down by this organ, they can further increase the odds of this problem by placing extra stress on the liver. However, the right therapy can minimize these risks, without sacrificing any of the benefits. (More about that in a minute.)

So, with these things in mind, how can you and your doctor go about choosing a treatment that will provide dependable, predictable control of your symptoms, while minimizing unwanted side effects?

First of all, be up front with your physician about less-than-healthy habits like smoking, drinking a lot of coffee or using drugs. If you drink alcohol, be honest about how much and how often. (Remember: your doctor's job is to help keep you healthy, not to judge you, and everything you say stays confidential.)

Make sure the doctor who's treating your schizophrenia, your family physician, and any specialists you see each have up-to-date lists of all the medications you take regularly, including any over-the-counter drugs and herbal supplements. List each medication, along with doses, and how many times a day you take them, write them down on a card, and tuck it into your wallet or purse. This will help reduce the chance of drug interactions occurring if you have to go to Emergency or a walk-in clinic. And if possible, fill all your prescriptions at one drugstore, so it's easier for the pharmacist to pick up any potential drug/drug or drug/disease conflicts.

There are some anti-psychotic medications you may want to consider which are metabolized by the liver to a lesser degree than others. This reduces the odds of drug interactions, making any other medical conditions you may have much easier to manage, and decreasing the chance that any additional medications you need to take will upset the balance that keeps the amount of anti-schizophrenia medication in your blood at just the right level. That means you can spend less time thinking about how your various medications might affect your health, so you can devote more energy to things you enjoy. After all, the goal isn't simply to successfully treat your schizophrenia, but to help you live a life that's as long, happy and healthy as possible.

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