

Are over-the-counter (OTC) medications safe?-Aspirin 2

By Susan Chen, RPh, PharmD, MS, BCGP

As a pharmacist, I do not think OTC medications are safe. One of them is Non-steroidal anti-inflammatory drugs (NSAIDs), such as aspirin, ibuprofen, and Naproxen, etc.

Adverse drug reactions of aspirin continued...

4. Liver damage caused by aspirin. 20 mg/dL Aspirin concentration will cause liver damage, such as elevated liver enzymes (e.g. aminotransferase, alkaline phosphatase, or bilirubin). Patients have liver damage caused by aspirin usually do not have symptoms; some mild symptoms are nausea/vomiting, etc.

5. Noncardiogenic pulmonary edema, extra fluid accumulates in the lungs. It happens when Aspirin concentration is over 40 mg/dL. Symptoms are fast heart rate and short of breath.

6. Aspirin and other NSAIDs are not safe during the third-trimester of pregnancy. Use of aspirin or other NSAIDs during the last three months of pregnancy will increase chances of bleeding and premature closure of heart vessels.

7. Aspirin can pass through the milk of a nursing mother to the baby.

8. Hypersensitivity reaction to aspirin. About 15 % of the patients who take Aspirin have hypersensitivity reactions, such as itching or narrowing the airway (bronchi).

9. Anti-platelet effects. NSAIDs and aspirin inhibit prostaglandin and thromboxane biosynthesis. Thromboxane can activate platelet aggregation; inhibit the synthesis of it and it will reduce platelet aggregation. That is the mechanism in "blood thinner" of Aspirin. The problem is that the effect of blood thinner in aspirin is irreversible. And its antiplatelet effects can last about 10 days (this is why doctor suggests stopping aspirin 7 days prior surgery to prevent non-stop bleeding if someone takes Aspirin daily).

Now we know that aspirin can be adverse to lung, heart, and liver functions. Aspirin and other NSAIDs should be used with caution during nursing or pregnancy, especially during the last three months of pregnancy. There is a high possibility of bleeding if patients take two or more blood thinners at the same time. Drug-drug interaction is a very important concern; especially, if you are taking many medications, visiting multiple pharmacies, seeing many doctors, or taking over-the-counter medications at the same time. Many patients do not bring in their over-the-counter medications when they come to see me or when talk about their medications; simply, they do not consider that the "OTCs" are medications or they believe they are relatively safe. Today's take home message is that chronically used over-the-counter medications can cause other chronic conditions and OTCs can also cause significant drug-drug interactions.

Next time, I will continue to talk about the drug-drug interaction of aspirin. I would love to have you share your experience taking aspirin or other NSAIDs. Please feel free to share this page with your friends and families. See you next time.

