

Aspirin/NSAID Sensitivity  
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Allergists frequently see patients who are sensitive to aspirin and non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, naproxen and ketoprofen. Aspirin and NSAIDs all block an enzyme called cyclooxygenase-1 (COX-1). Therefore, if you have a reaction to aspirin or any NSAID, you are at risk to be sensitive to all the other members of the group.

Most reactions to these medications fall into two groups: symptoms in both the upper and lower airway, such as wheeze, cough, shortness of breath, and runny nose and skin symptoms, such as urticaria (hives) and angioedema (swelling). It is important to be evaluated if you think you may be sensitive to aspirin and NSAIDs.

A very dangerous reaction to aspirin/NSAIDs is worsening of asthma, with such symptoms as wheezing, cough, and shortness of breath. In fact, at least 10% of people over age 10 who have asthma will experience worsening of their asthma if they take aspirin/NSAIDs.

Since roughly one third of people who have asthma do not know they have this condition, it is important that you avoid aspirin/NSAIDs if you experience wheezing, cough, or shortness of breath with these medications. If you experience these symptoms with aspirin/NSAIDs, you should be evaluated both for sensitivity to these medications and for possible asthma.

Many people who are sensitive to aspirin/NSAIDs experience nasal symptoms, such as runny nose, post-nasal drip, and congestion. These upper airway reactions are closely related to the lower airway reactions of wheezing, cough and shortness of breath. In fact, these symptoms, along with nasal/sinus polyps, are found together in a syndrome called "Samter's Triad." If you have nasal symptoms with aspirin/NSAIDs or have nasal/sinus polyps, you should discuss this with your physician, because you may have asthma symptoms that you have not noticed.

20% to 80% of people who have chronic urticaria and angioedema (hives and swelling) will experience worsening of the urticaria and angioedema if they take aspirin/NSAIDs. If you have chronic urticaria and angioedema, it is best to avoid aspirin/NSAIDs.

It is uncomfortable to have urticaria and angioedema, but there may also be risks to your safety, such as swelling of the upper airway, if you are not careful to avoid triggers of this condition. If you notice that you get urticaria and angioedema after taking aspirin/NSAIDs, you should avoid these medications and be evaluated by a physician.

The first line of management of aspirin/NSAIDs is to avoid them. Most experts suggest that acetaminophen in doses up to 1000 mg is safe for people with aspirin/NSAID allergy. There is also a new class of pain and inflammation medication called "COX-2 inhibitors" that appears to generally be safe for people with aspirin/NSAID allergy. If you need to take aspirin/NSAIDs, a visit to an allergist/immunologist can be very helpful.

Allergist/immunologists have special training in the evaluation and treatment of sensitivity to aspirin/NSAIDs. If it is indicated, an allergist/immunologist can do testing for aspirin/NSAID allergy. If necessary, such as in the situation of coronary artery disease (which may require the long-term use of low-dose aspirin), or uncontrollable nasal/sinus polyps, an allergist/immunologist may be able to desensitize individuals to aspirin/NSAIDs. Unfortunately, it is not possible to desensitize people who have chronic urticaria and angioedema to aspirin/NSAIDs.

Sensitivity to aspirin/NSAIDs is common and potentially dangerous. It is important to know if you are sensitive to these medications. Some clues include wheeze, cough, shortness of breath, runny nose, congestion, hives and swelling after taking these medications. If you have any of these symptoms after taking aspirin/NSAIDs, avoid these medications and see a physician.

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