



# Pilots and Medication

Impairment from medication, particularly over the counter (OTC) medication, has been cited in a number of accidents in general aviation. This led the NTSB and GAJSC to conduct a study of pilot impairment in aviation. While the extent of impairment was undetermined, the GAJSC found that 40 percent of the 200 fatal accidents studied were positive for some form of drug.

## What's the Problem?

First of all, we all know that OTC drugs may compromise a pilot's ability to control the aircraft and/or adversely affect executive cognitive functions planning, multitasking, and decision-making, among others. The difficulty comes for investigators in quantifying the known detriment that comes with various medications and conditions.

Another area of concern is that airmen are not disclosing some conditions and medications to their Aviation Medical Examiner (AME). Not only could the undisclosed condition endanger the airman, but the treatment might also create problems. One way is that undisclosed treatments could cause potentially impairing drug interactions. That's why it's important to disclose any medications you are taking to your AME. In many cases there are other treatment options that may allow you to continue flying.

## What to Look For

Luckily for us the Food and Drug Administration (FDA) requires standard labeling for all OTC medications. These standard labels allow for easy comparison. They also highlight potential side effects like drowsiness.

*Continued on Next Page*



Drug Facts																	
Therapeutic substance in drug	<table border="1"> <tr> <td><b>Active ingredient (in each tablet)</b></td> <td><b>Purpose</b></td> </tr> <tr> <td>Chlorpheniramine maleate 2 mg</td> <td>Antihistamine</td> </tr> </table>	<b>Active ingredient (in each tablet)</b>	<b>Purpose</b>	Chlorpheniramine maleate 2 mg	Antihistamine												
<b>Active ingredient (in each tablet)</b>	<b>Purpose</b>																
Chlorpheniramine maleate 2 mg	Antihistamine																
	<table border="1"> <tr> <td><b>Uses</b></td> <td>temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:</td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>■ sneezing</li> <li>■ runny nose</li> <li>■ itchy, watery eyes</li> <li>■ itchy throat</li> </ul> </td> <td></td> </tr> </table>	<b>Uses</b>	temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:	<ul style="list-style-type: none"> <li>■ sneezing</li> <li>■ runny nose</li> <li>■ itchy, watery eyes</li> <li>■ itchy throat</li> </ul>													
<b>Uses</b>	temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:																
<ul style="list-style-type: none"> <li>■ sneezing</li> <li>■ runny nose</li> <li>■ itchy, watery eyes</li> <li>■ itchy throat</li> </ul>																	
When not to use this drug, when to stop taking it, when to see a doctor, and possible side effects	<table border="1"> <tr> <td><b>Warnings</b></td> <td></td> </tr> <tr> <td><b>Ask a doctor before use if you have</b></td> <td></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>■ glaucoma</li> <li>■ a breathing problem such as emphysema or chronic bronchitis</li> <li>■ trouble urinating due to an enlarged prostate gland</li> </ul> </td> <td></td> </tr> <tr> <td><b>Ask a doctor or pharmacist before use if you are taking</b></td> <td>tranquilizers or sedatives</td> </tr> <tr> <td><b>When using this product</b></td> <td></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>■ You may get drowsy</li> <li>■ Alcohol, sedatives, and tranquilizers may increase drowsiness</li> <li>■ Be careful when driving a motor vehicle or operating machinery</li> <li>■ Excitability may occur, especially in children</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>■ Avoid alcoholic drinks</li> </ul> </td> </tr> <tr> <td></td> <td><b>If pregnant or breastfeeding, ask a health professional before use.</b></td> </tr> <tr> <td></td> <td><b>Keep out of reach of children.</b> In case of overdose, get medical help or contact a Poison Control Center right away.</td> </tr> </table>	<b>Warnings</b>		<b>Ask a doctor before use if you have</b>		<ul style="list-style-type: none"> <li>■ glaucoma</li> <li>■ a breathing problem such as emphysema or chronic bronchitis</li> <li>■ trouble urinating due to an enlarged prostate gland</li> </ul>		<b>Ask a doctor or pharmacist before use if you are taking</b>	tranquilizers or sedatives	<b>When using this product</b>		<ul style="list-style-type: none"> <li>■ You may get drowsy</li> <li>■ Alcohol, sedatives, and tranquilizers may increase drowsiness</li> <li>■ Be careful when driving a motor vehicle or operating machinery</li> <li>■ Excitability may occur, especially in children</li> </ul>	<ul style="list-style-type: none"> <li>■ Avoid alcoholic drinks</li> </ul>		<b>If pregnant or breastfeeding, ask a health professional before use.</b>		<b>Keep out of reach of children.</b> In case of overdose, get medical help or contact a Poison Control Center right away.
<b>Warnings</b>																	
<b>Ask a doctor before use if you have</b>																	
<ul style="list-style-type: none"> <li>■ glaucoma</li> <li>■ a breathing problem such as emphysema or chronic bronchitis</li> <li>■ trouble urinating due to an enlarged prostate gland</li> </ul>																	
<b>Ask a doctor or pharmacist before use if you are taking</b>	tranquilizers or sedatives																
<b>When using this product</b>																	
<ul style="list-style-type: none"> <li>■ You may get drowsy</li> <li>■ Alcohol, sedatives, and tranquilizers may increase drowsiness</li> <li>■ Be careful when driving a motor vehicle or operating machinery</li> <li>■ Excitability may occur, especially in children</li> </ul>	<ul style="list-style-type: none"> <li>■ Avoid alcoholic drinks</li> </ul>																
	<b>If pregnant or breastfeeding, ask a health professional before use.</b>																
	<b>Keep out of reach of children.</b> In case of overdose, get medical help or contact a Poison Control Center right away.																
	<table border="1"> <tr> <td><b>Directions</b></td> <td></td> </tr> <tr> <td>Adults and children 12 years and over</td> <td>Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours</td> </tr> <tr> <td>Children 6 years to under 12 years</td> <td>Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours</td> </tr> <tr> <td>Children under 6 years</td> <td>Ask a doctor</td> </tr> </table>	<b>Directions</b>		Adults and children 12 years and over	Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours	Children 6 years to under 12 years	Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours	Children under 6 years	Ask a doctor								
<b>Directions</b>																	
Adults and children 12 years and over	Take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours																
Children 6 years to under 12 years	Take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours																
Children under 6 years	Ask a doctor																
More information on how to store the drug	<table border="1"> <tr> <td><b>Other information</b></td> <td>Store at 20-25° C (68-77° F)</td> </tr> <tr> <td></td> <td>■ Protect from excessive moisture</td> </tr> <tr> <td><b>Inactive ingredients</b></td> <td>D&amp;C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch</td> </tr> </table>	<b>Other information</b>	Store at 20-25° C (68-77° F)		■ Protect from excessive moisture	<b>Inactive ingredients</b>	D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch										
<b>Other information</b>	Store at 20-25° C (68-77° F)																
	■ Protect from excessive moisture																
<b>Inactive ingredients</b>	D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch																

## Common Enemies

Some of the most common, potentially impairing medications are antihistamines. These allergy medications can have powerful sedating effects — so much so that the primary offender, diphenhydramine (trade name: *Benadryl*) is often used as an OTC sedative and is the sedating agent in most PM pain meds. According to the NTSB study, sedating antihistamines are the most commonly detected medication in fatal accidents.

The second most common were cardiovascular drugs which includes medications for high blood pressure. Some less common impairing drugs include antidiarrheal drugs (some contain opioids), anti-seizure drugs, some smoking cessation drugs, and some antidepressants. For many of these drugs there are options that are not impairing or disqualifying if you work with your primary care doctor and/or AME for a prescription. If you suffer from allergies you might use Loratadine instead of diphenhydramine, to cite one example.

## How Long?

So if you have to take a disqualifying or impairing medicine how long should you wait before resuming flying? Every medicine is different, but a good rule of thumb is five times the half-life of the medication. The easy way to determine this is through the dosing interval. If a medication says to take it four times per day the dosing interval would be every six hours. Therefore, the wait time after the last does would be 30 hours (6 hours x 5=30 hours). Other medications may have longer or shorter intervals which is why it's important to talk to your AME.

## Where Can I Get More Information?

A good place to start is the AME Guide. This is where the FAA puts information for AMEs on how various medications might affect your fitness for flight. You can also find some specific information on “don't fly” times for some medications as well. You can find these in the Do Not Issue/Do Not Fly section. You can also find good information on drugs through trusted government sites like NIH's Medline. This site lists both generic and trade names along with side effects and warning for almost every drug out there.

## Resources

### Medline Plus Drug Information

<http://www.nlm.nih.gov/medlineplus/druginformation.html>

### AME Guide — Pharmaceuticals

[https://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/aam/ame/guide/pharm/](https://www.faa.gov/about/office_org/headquarters_offices/avs/aam/ame/guide/pharm/)

### AME Guide — Do Not Issue — Do Not Fly

[https://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/aam/ame/guide/pharm/dni\\_dnf/](https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/pharm/dni_dnf/)

