

The National FAA Safety Team Presents

Topic of the Month – Dec (from Oct) *Aerospace Medicine and You*

Presented to: **EAA Apalachicola Chapter 1646**
By: **Bruce Graham FAAST Rep KAAF / X13**
Date: **9 December 2023**

Produced by:
The National FAA Safety Team (FAASTeam)



**Federal Aviation
Administration**



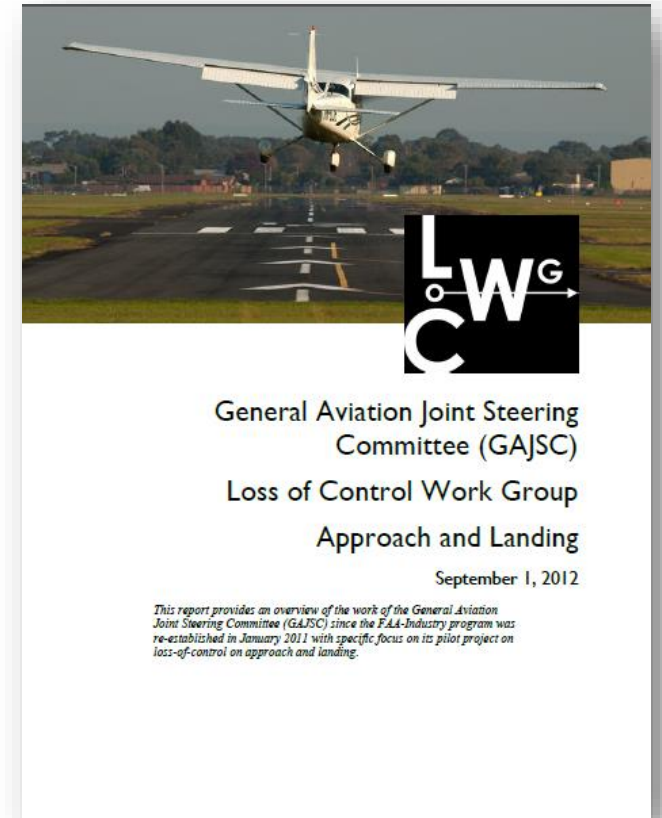
Welcome

- Exits
- Restrooms
- Emergency Evacuation
- Breaks - **NONE**
- Set phones & pagers to silent or off
- Thanks for making FFAST a part of the EAA Apalachicola Chapter 1646 Safety Focus
- Attendance sheet with your WINGS email for credit!



Overview

- **General Aviation Joint Safety (GAJSC) & FAA Accident Study Findings**
- **FAA Office of Aerospace Medicine**
- **Medical certification**
- **Flying and Medications**
- **Drug/Medication Combinations**
- **Tips**



FAA Safety Briefing Magazine

- **January/February 2022 Issue**
 - **Aerospace Medicine focus**
 - Roles and responsibilities
 - **Medical Certification**
 - Basic Med
 - Speeding up the certification process
 - **Prescription and OTC Medications**
 - **The Human Factor**
 - **And more**



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FAA Office of Aerospace Medicine

- **Headquarters – Washington DC**
 - Federal Air Surgeon – Dr. Susan Northrup
- **Aerospace Medical Certification Division**
 - Pilot & employee medical certification
- **Civil Aerospace Medical Institute (CAMI)**
 - Medical and human factors research and education
- **Drug Abatement Division**
 - Aviation industry drug & alcohol testing
- **Regional Medical Divisions**
 - [Regional Flight Surgeon Contact Information | Federal Aviation Administration \(faa.gov\)](#)



More about Medical Certification

- **Medical certificates**
- **Pilot Information**
- **Aviation Medical Examiner Locator**
- **Q&A**
- **MedXpress**
- **BasicMed**



More about CAMI

- **Aerospace Medical & Human Factors Research**
- **Aerospace Medical Education Training Programs**
 - Aviation Medicine
 - Aviation Medical Examiners (AMEs)
 - Airman Education Programs
- **Aeromedical Safety Brochures**



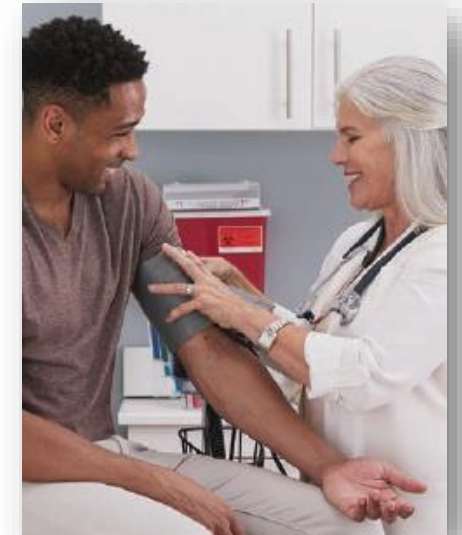
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Pilot Maintenance

- **Annual/100 hour inspections**
 - Periodic medical examinations
- **Preflight and Post-flight Inspections**
 - I'm SAFE Checklist
- **Detect and correct small problems**
 - Before they become big ones



I'm Safe Checklist

I – Illness

M – Medication

S – Stress

A – Alcohol

F – Fatigue

E – Eating & Emotion



Getting started with medical certification

- <https://medxpress.faa.gov>

A screenshot of the FAA MedXPress login page. The browser address bar shows 'https://medxpress.faa.gov/MedXpress/Login.aspx'. The page features the Federal Aviation Administration logo and the text 'Federal Aviation Administration'. Navigation links for 'Log In' and 'Contact Us' are in the top right. A blue bar contains 'Account' and 'Help' tabs. The main content area is titled 'FAA MedXPress' with 'Release 4.0' below it. A paragraph explains the system's purpose. A 'NOTE' states that a medical examination by an AME is required. The login form includes an 'Existing User' section with 'Email Address' and 'Password' input fields, a 'Forgot Your Password?' link, and a 'Login' button. Below this is an 'Are You a New User?' section with a 'Request an Account' button.

Schedule an examination

Federal Aviation Administration
Designee Management System Home Page

Designee Locator Search

Search

Designee Types:*

Select Search Criteria

Select one of the options: * Location Search Designee Search

City:

County:

State:

Country:

Postal Code:

Designation Type

First Class AME

Employee Examiner

HIMS

<https://bit.ly/3Mxmjtj>



BasicMed at 7-years

- FAA medical certificate issued after July 16, 2006
- Current and valid U.S. Driver's License
- Comprehensive Medical Exam Checklist (CMEC)
- Physical Exam
 - By state-licensed physician.
- Online Course
 - AOPA
 - Mayo Clinic



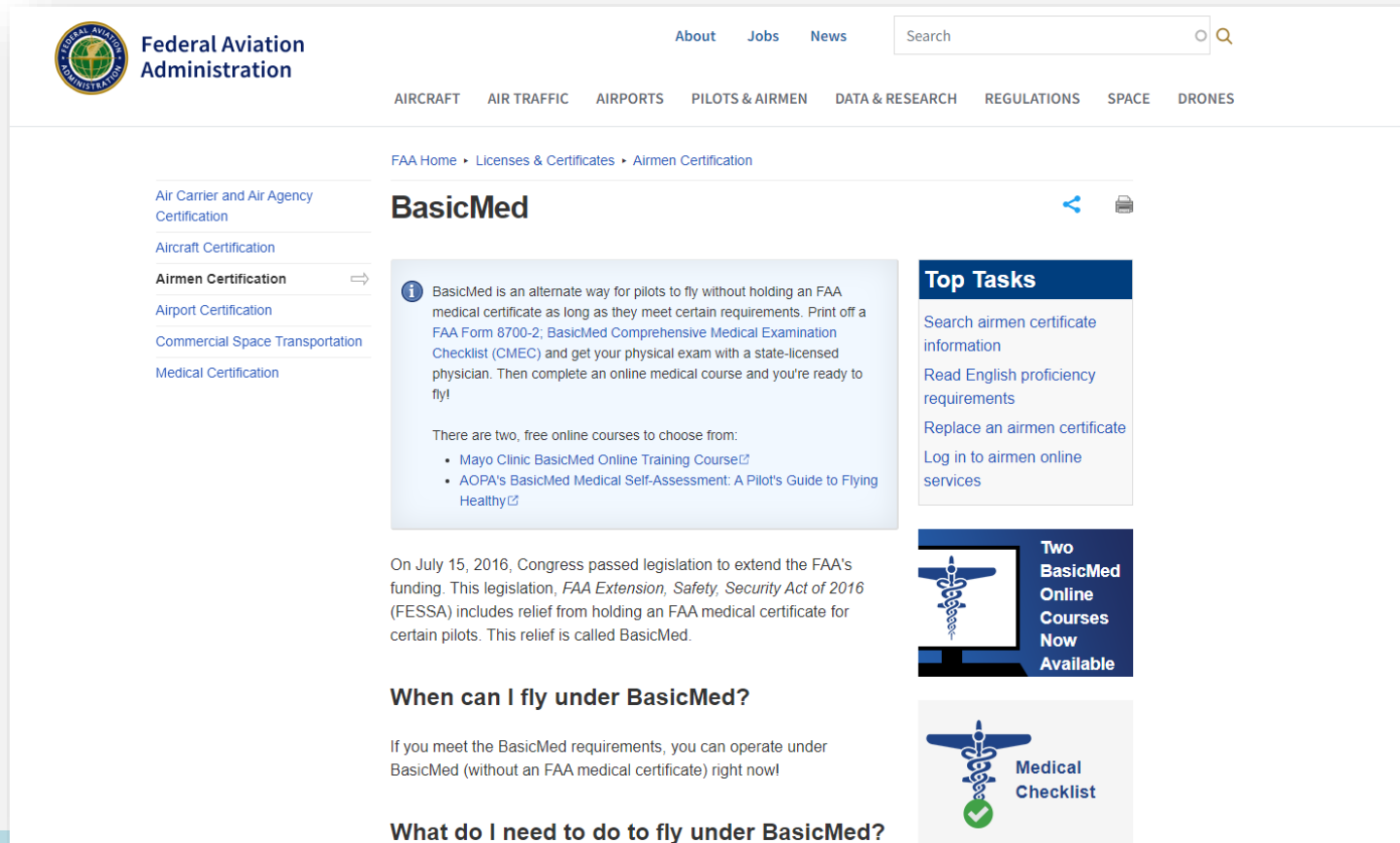
BasicMed Limitations

- **Aircraft**
 - Max Takeoff Weight not more than 6,000 pounds
 - No more than six occupants
- **Operations**
 - No more than five passengers
 - No higher than 18,000 MSL or above 250 KIAS
 - No flights outside the United States
 - No operations for compensation or hire
 - CFIs may receive compensation for instruction given.



Getting started with BasicMed

- [BasicMed | Federal Aviation Administration \(faa.gov\)](https://www.faa.gov/basicmed)



The screenshot shows the FAA website's BasicMed page. At the top left is the FAA logo and the text "Federal Aviation Administration". To the right are navigation links for "About", "Jobs", and "News", along with a search bar. Below this is a horizontal menu with categories: "AIRCRAFT", "AIR TRAFFIC", "AIRPORTS", "PILOTS & AIRMEN", "DATA & RESEARCH", "REGULATIONS", "SPACE", and "DRONES". The main content area has a breadcrumb trail: "FAA Home > Licenses & Certificates > Airmen Certification". On the left is a sidebar menu with options: "Air Carrier and Air Agency Certification", "Aircraft Certification", "Airmen Certification" (highlighted with a right-pointing arrow), "Airport Certification", "Commercial Space Transportation", and "Medical Certification". The main heading is "BasicMed". Below it is an information box with an 'i' icon: "BasicMed is an alternate way for pilots to fly without holding an FAA medical certificate as long as they meet certain requirements. Print off a FAA Form 8700-2; BasicMed Comprehensive Medical Examination Checklist (CMEC) and get your physical exam with a state-licensed physician. Then complete an online medical course and you're ready to fly!" Below this, it says "There are two, free online courses to choose from:" followed by two bullet points: "Mayo Clinic BasicMed Online Training Course" and "AOPA's BasicMed Medical Self-Assessment: A Pilot's Guide to Flying Healthy". To the right of the main text is a "Top Tasks" section with a blue header and a list of links: "Search airmen certificate information", "Read English proficiency requirements", "Replace an airmen certificate", and "Log in to airmen online services". Below that is a blue box with a caduceus icon and the text "Two BasicMed Online Courses Now Available". At the bottom right is a box with a caduceus icon and a green checkmark, labeled "Medical Checklist". The main text continues with "On July 15, 2016, Congress passed legislation to extend the FAA's funding. This legislation, *FAA Extension, Safety, Security Act of 2016* (FESSA) includes relief from holding an FAA medical certificate for certain pilots. This relief is called BasicMed." Below this are two sections: "When can I fly under BasicMed?" and "What do I need to do to fly under BasicMed?". The text under the first section says "If you meet the BasicMed requirements, you can operate under BasicMed (without an FAA medical certificate) right now".



Comprehensive Medical Exam Checklist

- **Section 1 - Airman**
 - Complete before physical exam
- **Section 2 – State-licensed Physician**

Comprehensive Medical Examination Checklist
BASICMED SECTION 2: INDIVIDUAL INFORMATION
(To be completed by the airman)

Form approved CMB No: 2120-0770
Expires: 06/30/2023

1-2 Omitted

3 Name: Last: _____ First: _____ Middle: _____ 4 SS # (optional) _____

5 Address/street: _____ City: _____ State/Country: _____ Telephone: _____

6 Date of birth: _____ Zip Code: _____

7 Color of hair: _____ Country of Citizenship: _____

8 Color of eyes: _____ 9 Sex: _____

10 Type of airman certificate(s) you hold: Airline Transport ATC Specialist Commercial Flight Engineer Flight Instructor
 Flight Navigator Private Recreational Student None

11 Occupation (optional): _____

13 Has your FAA Airman Medical Certificate ever been denied, suspended, revoked, or withdrawn? No Yes 12 Employer (optional): _____

16 Date of Last FAA Medical Application: _____ If yes, give date: _____ 14 Omitted

17 Do You Currently Use Any Medication? (Prescription or over-the-counter) No Yes 15 Omitted

If additional space is needed, check this box: and list information on an additional sheet of paper

17b Do you ever use near vision contact lens(es) while flying? No Yes Answer "Yes" if you wear a contact in one eye only to correct for near vision or if you have one contact that adjusts for near vision and one in the other eye that adjusts for distant vision.

18 Medical History: Mark "Yes" if you have or had any of the following conditions at ANY TIME in your life. Explain when it occurred, the severity, how it was treated, and if you are currently taking any medication or having treatment for the condition or have to see a physician for the condition. Discuss any "Yes" responses with the physician doing this exam.

	No	Yes
a. Frequent or severe headaches:		
b. Dizziness or fainting spell:		
c. Unconsciousness for any reason:		
d. Eye or vision trouble (except for glasses):		
e. Hay fever or allergy:		
f. Asthma or lung disease:		
g. Heart or vascular trouble:		
h. High or low blood pressure:		
i. Stomach, liver, or intestinal trouble:		
j. Kidney stone or blood in urine:		
k. Diabetes:		
l. Neurological disorders (epilepsy, seizures, stroke, paralysis, etc.):		

Additional comments or explanations (Give details in the space below)

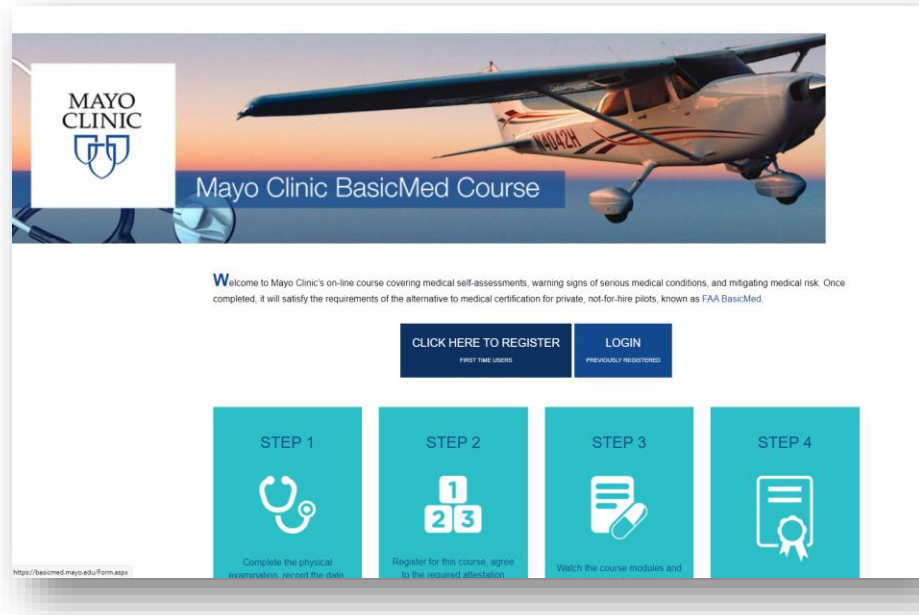
FAA 8700-2 Comprehensive Medical Examination Checklist (04-17)

5

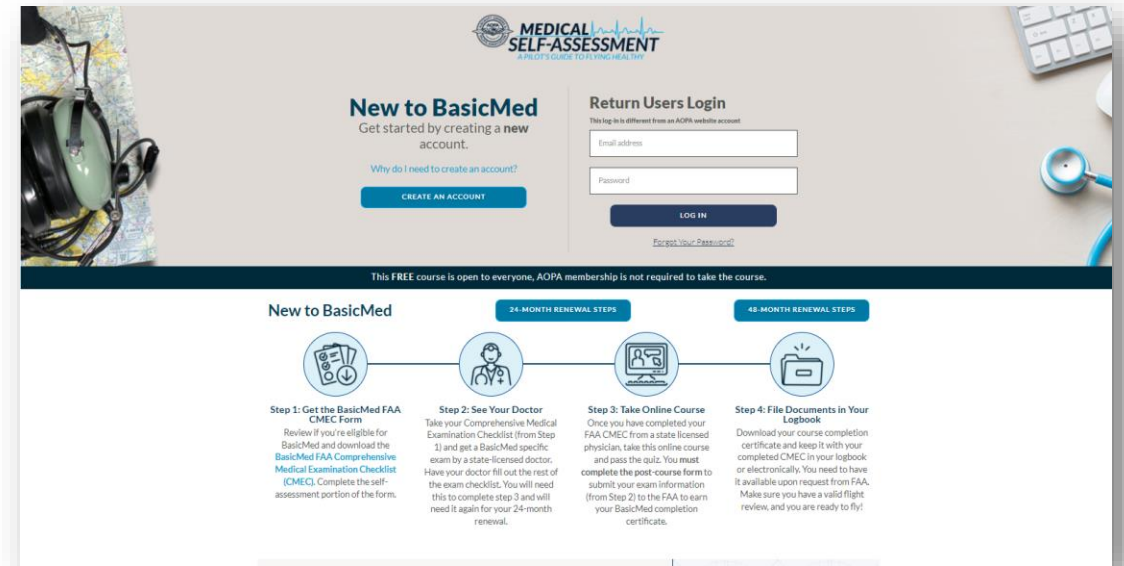


Online Course

- AOPA
- Mayo Clinic



The image shows the landing page for the Mayo Clinic BasicMed Course. At the top left is the Mayo Clinic logo. To its right is a photograph of a small airplane in flight against a sunset sky. Below the photo is the text "Mayo Clinic BasicMed Course". A welcome message reads: "Welcome to Mayo Clinic's on-line course covering medical self-assessments, warning signs of serious medical conditions, and mitigating medical risk. Once completed, it will satisfy the requirements of the alternative to medical certification for private, not-for-hire pilots, known as FAA BasicMed." Below this are two buttons: "CLICK HERE TO REGISTER" for first-time users and "LOGIN" for previously registered users. At the bottom, there are four teal boxes representing the course steps: Step 1 (Stethoscope icon) - "Complete the physical examination, record the data."; Step 2 (Numbered 1, 2, 3 icon) - "Register for this course, agree to the required attestation."; Step 3 (Medical chart icon) - "Watch the course modules and"; Step 4 (Certificate icon) - "Download your course completion certificate and keep it with your completed CMEC in your logbook or electronically. You need to have it available upon request from FAA. Make sure you have a valid flight review, and you are ready to fly!"



The image shows the "MEDICAL SELF-ASSESSMENT" website interface. At the top right is the logo. The main content area is split into two sections: "New to BasicMed" and "Return Users Login". The "New to BasicMed" section has a "CREATE AN ACCOUNT" button and a link "Why do I need to create an account?". The "Return Users Login" section has input fields for "Email address" and "Password", a "LOG IN" button, and a "Forgot Your Password?" link. Below this is a navigation bar with "New to BasicMed", "24-MONTH RENEWAL STEPS", and "48-MONTH RENEWAL STEPS". A central flowchart shows four steps: Step 1: Get the BasicMed FAA CMEC Form; Step 2: See Your Doctor; Step 3: Take Online Course; Step 4: File Documents in Your Logbook. Each step includes a brief description of the required actions.

- Course refresher – 24 months
- Physical exam – 48 months



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CAMI Toxicology Study

- **January/February 2022 Issue**
 - 570 out of 1,353 pilots tested positive for medications/drugs.
 - 511 of the 570 (90%), were flying under CFR Part 91.
- **Extent of Impairment – Undetermined**
 - But cause for concern



What's the Problem

- **Not easy to determine extent of impairment**
 - Different medication effects for different people
 - Post-mortem redistribution and sample type
- **Don't know about pilot's condition**
 - Pre-existing medical condition requiring medication
- **AME not consulted?**
- **Drug interactions**



Federal Drug Labeling Standards

Provide information for:

Patients

Healthcare professionals

Both

It Depends



OTC Medication Labeling

- Read the label
- Labeling Standards
 - Directed to medication users
 - In non-technical language

WHAT'S ON THE NEW LABEL

All nonprescription, over-the-counter (OTC) medicine labels have detailed usage and warning information so consumers can properly choose and use the products.

Below is an example of what the new OTC medicine label looks like.

ACTIVE INGREDIENT
Therapeutic substance in product; amount of active ingredient per unit

PURPOSE
Product action or category (such as an antihistamine, antacid, or cough suppressant)

DIRECTIONS
Specific age categories, how much to take, how to take, and how often and how long to take

OTHER INFORMATION
How to store the product properly and required information about certain ingredients (such as the amount of calcium, potassium, or sodium the product contains)

USES
Symptoms or diseases the product will treat or prevent

WARNINGS
When not to use the product; conditions that may require advice from a doctor before taking the product; possible interactions or side effects; when to stop taking the product and when to contact a doctor; if you are pregnant or breastfeeding, seek guidance from a health care professional; keep product out of children's reach

INACTIVE INGREDIENTS
Substances such as colors or flavors

Drug Facts
Active ingredient (in each tablet)
Purpose
Directions
Warnings
Uses
Other information
Inactive ingredients

The new Drug Facts labeling requirements do not apply to dietary supplements, which are regulated as food products, and are labeled with a Supplement Facts panel.



OTC Medication Labeling

- Read the label
 - Active Ingredient(s)
 - Purpose
 - Uses
 - Warnings
 - Directions

Drug Facts	
Active ingredient (in each tablet)	Purpose
Chlorpheniramine maleate 2 mg.....	Antihistamine
Uses temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: ■ sneezing ■ runny nose ■ itchy, watery eyes ■ itchy throat	
Warnings	
Ask a doctor before use if you have	
■ glaucoma ■ a breathing problem such as emphysema or chronic bronchitis	
■ trouble urinating due to an enlarged prostate gland	
Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives	
When using this product	
■ drowsiness may occur ■ avoid alcoholic drinks	
■ alcohol, sedatives, and tranquilizers may increase drowsiness	
■ be careful when driving a motor vehicle or operating machinery	
■ excitability may occur, especially in children	
If pregnant or breast-feeding, ask a health professional before use.	
Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.	
Directions	
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

Drug Facts (continued)	
Other information ■ store at 20-25° C (68-77° F) ■ protect from excessive moisture	
Inactive ingredients D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch	



Sleep Aids & Cough Medications

- **Both likely to contain antihistamines which may cause drowsiness or sedation**
 - “Hang Over” effect
 - Side effects may last several days
- **Short term use only**



How long must I wait?

- **FAA recommends waiting five times the dosage interval.**
 - Particularly true for any medication causing drowsiness.
- **Four times per day = 6-hour intervals**
 - $5 \times 6 = 30$ hours



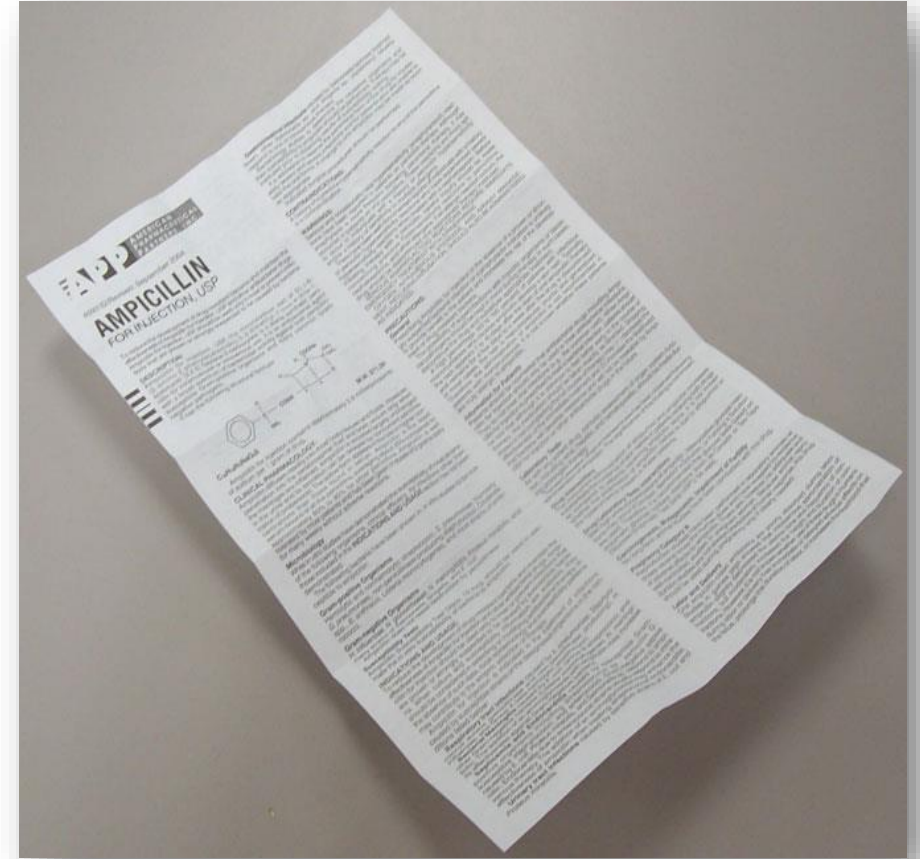
Prescription Medications

- **May recommend not operating a motor vehicle**
 - Includes cars, airplanes, boats, etc.
- **May be prescribed individually**
 - Perhaps by different Healthcare Providers
 - Interactions may not be addressed or unknown
- **Prescription drug labeling**
 - Directed to Healthcare Provider

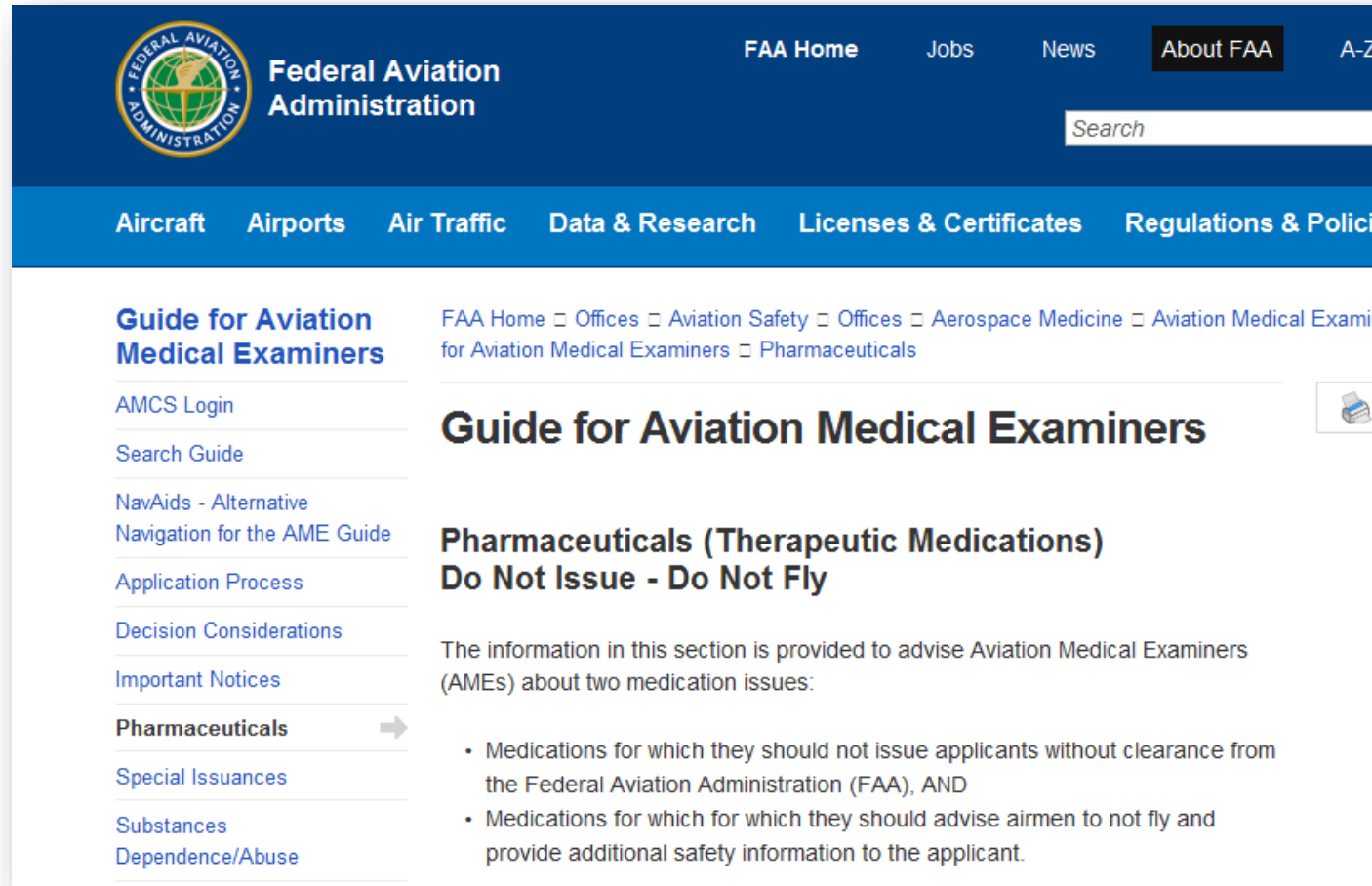


Prescription Drug Labeling

- **Known by several names including:**
“prescribing information” or
“package insert”
- **Intended for Healthcare providers,**
but available to anyone
 - May be several pages long in very small print
 - Very technical language



Do not issue - Do not fly



The screenshot displays the FAA website's navigation and content. At the top, the FAA logo and name are on the left, and navigation links for 'FAA Home', 'Jobs', 'News', 'About FAA', and 'A-Z' are on the right. A search bar is also present. Below the header, a blue navigation bar contains links for 'Aircraft', 'Airports', 'Air Traffic', 'Data & Research', 'Licenses & Certificates', and 'Regulations & Policies'. The main content area features a left sidebar with a 'Guide for Aviation Medical Examiners' section, including links for 'AMCS Login', 'Search Guide', 'NavAids - Alternative Navigation for the AME Guide', 'Application Process', 'Decision Considerations', 'Important Notices', 'Pharmaceuticals' (highlighted with a right-pointing arrow), 'Special Issuances', 'Substances', and 'Dependence/Abuse'. The main content area shows a breadcrumb trail: 'FAA Home > Offices > Aviation Safety > Offices > Aerospace Medicine > Aviation Medical Examiners > for Aviation Medical Examiners > Pharmaceuticals'. The main heading is 'Guide for Aviation Medical Examiners', followed by 'Pharmaceuticals (Therapeutic Medications) Do Not Issue - Do Not Fly'. The text states: 'The information in this section is provided to advise Aviation Medical Examiners (AMEs) about two medication issues:'. A bulleted list follows: '• Medications for which they should not issue applicants without clearance from the Federal Aviation Administration (FAA), AND' and '• Medications for which for which they should advise airmen to not fly and provide additional safety information to the applicant.'



Combining Medications

- **Prescriptions with Prescriptions**
 - Does the Prescribing Provider know you fly?
 - Does your AME know about all the medications you take and conditions you have?
- **Prescriptions with OTC**
 - Consult your AME and/or Regional Flight Surgeon
 - and/or consult your Pharmacist



FAA Clarifies Marijuana and CBD Policy

- **Positive tests of THC disqualify certain certifications even if it is a trace from CBD products.**
- **Cannabis remains illegal at the Federal level and US DOT continues to test for THC presence.**
- **Commercial CBD products, not approved by the FDA, may be mislabeled and contain detectible levels of THC.**
- **CBD oil is not accepted as an affirmative defense against a positive drug test.**



Tips

- **Consult your AME before flying while using prescription and/or OTC Drugs.**
- **Make sure your AME knows about all the drugs you take and the medical conditions requiring their use.**
- **Let your prescribing doctor know that you are a pilot**
- **Ask about adverse effects associated with drug combinations.**
- **In between doctor visits you're self assessing your condition before each flight. Ground yourself when you're not fit to fly.**



Resources

- **FAA Safety Briefing Magazine**
November/December 2023 issue
- <https://www.faa.gov/sites/faa.gov/files/NovDec2023.pdf>



Questions?

Special Thanks to: Jon M. Grazer, MD / William J. Tsai, MD / G. J. Salazar, MD, MPH

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Have you earned your *WINGS*?

- **Proficient Pilots are:**
 - Confident
 - Capable
 - Safe
- ***WINGS*** will keep you on top of your game



<http://www.mywingsinitiative.org/>



The Paul and Fran Burger \$10,000 WINGS Sweepstakes

The **WINGS** Sweepstakes mission is to reduce the nation's accident and incident rate by increasing pilot participation in the **WINGS** FAASTeam Pilot Proficiency Program. The **WINGS** program has courses based on real world accident and incident causes so flight instructors, pilots and student pilots get training that can truly make a difference.

Studies indicate that pilots who complete **WINGS** phases are safer aviators. Please join us in saving lives.

Captain Sully endorses the WINGS Pilot Proficiency Program

[View the video](#)

learn about the program and its many benefits.

The 2020 Sweepstakes awards 10 cash prizes! Prize levels include:

Four (4) \$1,500
Four (4) \$750
Two (2) \$500



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Proficiency and Peace of Mind

- Fly regularly with your CFI
- Perfect Practice
- Document in *WINGS*



Safety Management Systems (SMS) Coming to General Aviation



<https://www.faa.gov/about/initiatives/gasafetyoutreach>



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Thank you for attending

- You are vital members of our GA safety community



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