



Safety Beacon



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BEACON NEWSLETTER TEAM

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The Right Stuff

What Kind of Medical Must I Hold?

BY JAMES WILLIAMS

You have probably seen or heard about the kind of “right stuff” physical perfection required of early astronauts and, for that matter, the earliest aviators obliged to obtain a medical certificate. In both cases, the standards were such that many of today’s active airmen might have never passed the exam.

Fortunately, things are different now. The standards recognize that few of us are perfect physical specimens, and they also recognize that the level of certification required for personal recreational flying is different from that needed to command a large passenger airliner. Flexibility is good, but the range of available options can sometimes raise questions. A frequent query in the *FAA Safety Briefing* mailbox is some version of: "I have X condition and so I can only qualify for a third-class medical. Can I still get a flight instructor certificate?" A related area of confusion arises from the medical differences between *holding* a given pilot or instructor certificate and *exercising the privileges* of that certificate. Let's take a look.

First Things First

To take a practical test for your airline transport pilot (ATP) certificate, you only need a third-class medical. But if you want to exercise the privileges of the ATP certificate, you need to hold a first-class medical certificate. The same concept applies to acquiring a commercial certificate. You don't need more than a third-class medical to take the practical test, but of course you will need a second-class medical if you want to exercise commercial certificate privileges. There are some nuances involved in exercising the privileges of a flight instructor certificate, but we'll come back to that later on.

So what level of medical certificate should you seek? Some experts and organizations advise pilots to seek only the level of medical certification required for the level of privileges they intend to exercise. Even if you have an ATP certificate that you have acquired for personal development, or maybe for insurance reasons, you may not need to hold more than a third-class medical certificate for the kind of flying you actually do (e.g., private pilot privileges).

If you intend to fly professionally, though, it's a good idea to apply at least once for a first- or second-class medical. It makes sense to know up front if you can qualify for that level of medical certificate. Better to discover a problem at the beginning rather than invest (literally) the time and resources needed for commercial or ATP certificates and then learn that you will never be medically qualified to exercise those privileges.

Who's on Third?

You might think of the third-class medical as the foundational medical certification level and, for most purposes, it is. Unless you are flying as a sport pilot (more on that later), you need at least a third-class medical.



Being a flight instructor may not require a medical at all, but it might depending on the situation and the student.

Now let's get back to the question raised at the beginning with respect to exercising the privileges of a flight instructor certificate. We've already established that, assuming you pass the practical test, all you need to earn the flight instructor certificate is a third-class medical. But what if you have a medical condition that limits you to that level of medical certificate? Can you still exercise the privileges of a flight instructor certificate, which is valid only with the individual's commercial pilot certificate?

The short answer is yes. The longer answer has nuances. Let's look at both.

A pilot may exercise the privileges of a flight instructor certificate, act as pilot in command, and/or serve as required pilot flight crew member with no more than a third-class medical certificate. And if the flight instructor is not acting as pilot in command, 14 CFR section 61.23(b)(5) states that he or she does not need a medical at any level. Why the exception, since the flight instructor is presumably being paid? The FAA determined that flight instructors may be paid for their work without at least a second-class medical because they are being paid for their instruction, and not specifically for piloting the aircraft.



No Medical, No Problem

So are there things you can do without a medical certificate? Absolutely. As I have just explained, a flight instructor who is not acting as pilot in command can instruct without holding any kind of medical certificate. For instance, you could conduct proficiency training or a flight review for a certificated pilot who is rated in the airplane and current (i.e., current flight review).

There are other activities that do not require a medical. The regulations (14 CFR section 61.23(b)) list several operations not requiring a medical certificate. These include operating a glider or balloon.

As you probably know, a person exercising the privileges of a sport pilot certificate does not require a conventional medical certificate. This function is addressed in 14 CFR section 61.23(c), "operations requiring either a medical certificate or U.S. driver's license." This provision outlines the requirements and restrictions a sport pilot must observe when flying on the so-called driver's license medical. For instance, a pilot using his or her driver's license must comply with any restrictions placed on that license. And, if the pilot has ever applied for a medical certificate, that pilot must have been found eligible for the issuance of at least a third-class medical certificate at the time of the most recent application. The driver's license medical provision is similarly unavailable if the pilot's medical certificate has been suspended or revoked, or if the FAA has withdrawn the most recent special issuance. And, as with any kind of medical certificate, the pilot cannot know or have reason to know of any medical condition that would render him or her unable to safely operate a light sport aircraft.

As you can see just from this short summary, today's pilots have a great many more medical certification options than our flying forbears enjoyed. Use them; enjoy them; and fly safely! ✈️

James Williams is FAA Safety Briefing's associate editor and photo editor. He is also a pilot and ground instructor.

What medical certificate is required to take a practical test?

A word to the wise, however: Some operators or insurance companies may still require a second-class medical even if the FAA does not. In addition, a flight instructor with anything less than a second-class medical must be mindful of potential regulatory minefields.

"It's easy to find yourself on the wrong side of that issue," Aviation Safety Inspector and Airman Training and Certification Branch Manager Jeffrey Smith told us. "Let's say you're working for a flight school and they

The medical standards recognize that few of us are perfect physical specimens, and they also recognize that the level of certification required for personal recreational flying is different from that needed to command a large passenger airliner.

pay you to operate an aircraft for something other than flight instruction. Can you do that?" Smith explains that the answer may be no. "Depending on the flight, you'd be conducting a commercial operation that would require a second-class medical."

Smith continued, "These pop-up requests could create a problem for a CFI with only a third-class medical. If that's your situation, it's a good idea to have a talk with your local FSDO to be sure you understand the limitations on your operations with a third-class medical. Your employer might not realize those limitations when he or she asks you to do something, so it's important for you to be knowledgeable."



BY PAUL CIANCIOLO

Photo courtesy of Able Flight

Flying with Disabilities

You don't have to be able to walk to take wing and fly! As long as it is safe to do so, the FAA encourages everyone to experience the thrill and excitement of learning to fly.

Through sport pilot certification, people who use wheelchairs due to spinal cord injury or loss of limbs have the opportunity to earn their wings. Medically speaking, all that's needed is a valid and current state driver's license. Pilots must follow any restrictions or limitations set for driving while using the driver's license as a basis for flying. As you know, the driver's license medical is an option only if you have not

had an FAA medical exam that resulted in denial or deferral. In this case, you need to "clear" the issue first by getting at least a third class medical; you can later allow it to expire and use the driver's license medical option.

Disabled pilots who seek a private pilot (or higher) certificate may also have the option to seek a standard medical certificate issued with a Statement of Demonstrated Ability (SODA), which can include aircraft and other types of restrictions.

Pictured to the left is a hand control system with a stick for the rudder and integration of an additional brake handle, which can be installed in many light-sport aircraft. Specially modified aircraft allow people with disabilities to safely fly.

Pictured above is pilot Brad Jones, who earned his sport license in 2007 through Able Flight. Able Flight, online at ableflight.org, is a national non-profit organization that grants scholarships for flight and aviation career training to people with physical disabilities.



Photo courtesy of Flight Design USA

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HOW TO RESPOND

WHEN AN ACTIVE SHOOTER IS IN YOUR VICINITY

QUICKLY DETERMINE THE MOST REASONABLE WAY TO PROTECT YOUR OWN LIFE. CUSTOMERS AND CLIENTS ARE LIKELY TO FOLLOW THE LEAD OF EMPLOYEES AND MANAGERS DURING AN ACTIVE SHOOTER SITUATION.

1. EVACUATE

- Have an escape route and plan in mind
- Leave your belongings behind
- Keep your hands visible

2. HIDE OUT

- Hide in an area out of the active shooter's view.
- Block entry to your hiding place and lock the doors

3. TAKE ACTION

- As a last resort and only when your life is in imminent danger.
- Attempt to incapacitate the active shooter
- Act with physical aggression and throw items at the active shooter

CALL 911 WHEN IT IS SAFE TO DO SO

HOW TO RESPOND WHEN LAW ENFORCEMENT ARRIVES ON THE SCENE

1. HOW YOU SHOULD REACT WHEN LAW ENFORCEMENT ARRIVES:

- Remain calm, and follow officers' instructions
- Immediately raise hands and spread fingers
- Keep hands visible at all times
- Avoid making quick movements toward officers such as attempting to hold on to them for safety
- Avoid pointing, screaming and/or yelling
- Do not stop to ask officers for help or direction when evacuating, just proceed in the direction from which officers are entering the premises

2. INFORMATION YOU SHOULD PROVIDE TO LAW ENFORCEMENT OR 911 OPERATOR:

- Location of the active shooter
- Number of shooters, if more than one
- Physical description of shooter/s
- Number and type of weapons held by the shooter/s
- Number of potential victims at the location

RECOGNIZING SIGNS OF POTENTIAL WORKPLACE VIOLENCE

AN ACTIVE SHOOTER MAY BE A CURRENT OR FORMER EMPLOYEE. ALERT YOUR HUMAN RESOURCES DEPARTMENT IF YOU BELIEVE AN EMPLOYEE EXHIBITS POTENTIALLY VIOLENT BEHAVIOR. INDICATORS OF POTENTIALLY VIOLENT BEHAVIOR MAY INCLUDE ONE OR MORE OF THE FOLLOWING:

- Increased use of alcohol and/or illegal drugs
- Unexplained increase in absenteeism, and/or vague physical complaints
- Depression/Withdrawal
- Increased severe mood swings, and noticeably unstable or emotional responses
- Increasingly talks of problems at home
- Increase in unsolicited comments about violence, firearms, and other dangerous weapons and violent crimes



Contact your building management or human resources department for more information and training on active shooter response in your workplace.

Everyday Preventive Actions That Can Help Fight Germs, Like Flu

CDC recommends a three-step approach to fighting the flu.

CDC recommends a three-step approach to fighting influenza (flu). The first and most important step is to get a flu vaccination each year. But if you get the flu, there are prescription antiviral drugs that can treat your illness. Early treatment is especially important for the elderly, the very young, people with certain chronic health conditions, and pregnant women. Finally, everyday preventive actions may slow the spread of germs that cause respiratory (nose, throat, and lungs) illnesses, like flu. This flyer contains information about everyday preventive actions.



How does the flu spread?

Flu viruses are thought to spread mainly from person to person through the coughing, sneezing, or talking of someone with the flu. Flu viruses also may spread when people touch something with flu virus on it and then touch their mouth, eyes, or nose. Many other viruses spread these ways too.

People infected with flu may be able to infect others beginning 1 day **before** symptoms develop and up to 5-7 days **after** becoming sick. That means you may be able to spread the flu to someone else before you know you are sick as well as while you are sick. Young children, those who are severely ill, and those who have severely weakened immune systems may be able to infect others for longer than 5-7 days.

What are everyday preventive actions?

Everyday preventive actions are steps that people can take to help slow the spread of germs that cause respiratory illness, like flu. These include the following personal and community actions:

- Cover your nose and mouth with a tissue when you cough or sneeze. This will block the spread of droplets from your mouth or nose that could contain germs.
- Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand rub.
- Avoid touching your eyes, nose, and mouth. Germs spread this way.
- Try to avoid close contact with sick people.
- If you or your child gets sick with a respiratory illness, like flu, limit contact with others as much as possible to help prevent spreading illness. Stay home (or keep your child home) for at least 24 hours after fever is gone except to seek medical care or for other necessities. Fever should be gone without the use of a fever-reducing medicine.
- If an outbreak of flu or another illness occurs, follow public health advice. This may include information about how to increase distance between people and other measures.



Centers for Disease Control and Prevention
National Center for Immunization and Respiratory Diseases

What additional steps can I take at work to help stop the spread of germs that can cause respiratory illness, like flu?

- Find out about your employer’s plans if an outbreak of flu or another illness occurs and whether flu vaccinations are offered on-site.
- Routinely clean frequently touched objects and surfaces, including doorknobs, keyboards, and phones, to help remove germs.
- Make sure your workplace has an adequate supply of tissues, soap, paper towels, alcohol-based hand rubs, and disposable wipes.
- Train others on how to do your job so they can cover for you in case you or a family member gets sick and you have to stay home.
- If you begin to feel sick while at work, go home as soon as possible.



What additional preventive actions can I take to protect my child from germs that can cause respiratory illness, like flu?

- Find out about plans your child’s school, child care program, or college has if an outbreak of flu or another illness occurs and whether flu vaccinations are offered on-site.
- Make sure your child’s school, child care program, or college routinely cleans frequently touched objects and surfaces, and that they have a good supply of tissues, soap, paper towels, alcohol-based hand rubs, and disposable wipes on-site.
- Ask how sick students and staff are separated from others and who will care for them until they can go home.



Everyday preventive actions can help slow the spread of germs that can cause many different illnesses and may offer some protection against the flu.

For more information, visit www.cdc.gov, or call 1-800-CDC-INFO.



Avoid the Dirty Dozen

12 Common Causes of Human Factors Errors

About **80** Percent of Maintenance Mistakes Involve **Human Factors**

... and if Not Detected...
Would Lead to Accidents.

Put Safety First and Minimize the 12 Common Causes of Mistakes in the Aviation Workplace

1



Lack of Communication

Failure to transmit, receive, or provide enough information to complete a task. Never assume anything.
Only 30% of verbal communication is received and understood by either side in a conversation. Others usually remember the first and last part of what you say.

Improve your communication—

- Say the most important things in the beginning and repeat them at the end.
- Use checklists.

2



Complacency

Overconfidence from repeated experience performing a task.

Avoid the tendency to see what you expect to see—

- Expect to find errors.
- Don't sign it if you didn't do it.
- Use checklists.
- Learn from the mistakes of others.

3



Lack of Knowledge

Shortage of the training, information, and/or ability to successfully perform.

Don't guess, know—

- Use current manuals.
- Ask when you don't know.
- Participate in training.



Avoid These Common Causes of Mistakes in the Aviation Workplace

4



Distractions

Anything that draws your attention away from the task at hand. Distractions are the #1 cause of forgetting things, including what has or has not been done in a maintenance task.

Get back in the groove after a distraction—

- Use checklists.
- Go back 3 steps when restarting the work.

5



Lack of Teamwork

Failure to work together to complete a shared goal.

Build solid teamwork—

- Discuss how a task should be done.
- Make sure everyone understands and agrees.
- Trust your teammates.

6



Fatigue

Physical or mental exhaustion threatening work performance.

Eliminate fatigue-related performance issues—

- Watch for symptoms of fatigue in yourself and others.
- Have others check your work.

7



Lack of Resources

Not having enough people, equipment, documentation, time, parts, etc., to complete a task.

Improve supply and support—

- Order parts before they are required.
- Have a plan for pooling or loaning parts.

8



Pressure

Real or perceived forces demanding high-level job performance.

Reduce the burden of physical or mental distress—

- Communicate concerns.
- Ask for extra help.
- Put safety first.

9



Lack of Assertiveness

Failure to speak up or document concerns about instructions, orders, or the actions of others.

Express your feelings, opinions, beliefs, and needs in a positive, productive manner—

- Express concerns but offer positive solutions.
- Resolve one issue before addressing another.

10



Stress

A physical, chemical, or emotional factor that causes physical or mental tension.

Manage stress before it affects your work—

- Take a rational approach to problem solving.
- Take a short break when needed.
- Discuss the problem with someone who can help.

11



Lack of Awareness

Failure to recognize a situation, understand what it is, and predict the possible results.

See the whole picture—

- Make sure there are no conflicts with an existing repair or modifications.
- Fully understand the procedures needed to complete a task.

12



Norms

Expected, yet unwritten, rules of behavior.

Help maintain a positive environment with your good attitude and work habits—

- Existing norms don't make procedures right.
- Follow good safety procedures.
- Identify and eliminate negative norms.

Visit us at:
www.FAASafety.gov
Your Aviation Safety Web Site

FAA Safety Team | Safer Skies Through Education

New Issue of FAA Safety Briefing Available

Notice Number: NOTC4511

The January/February 2013 issue of FAA Safety Briefing focuses on aerospace medicine. Articles cover key issues that affect medical certification for pilots, discuss the pilot's role in this process, and explain the FAA's responsibilities.

Among the feature articles in this medically-themed issue include:

- understanding what your medical can (and can't) do for you, (pg 14)
- how to fast track your medical certificate with FAA's online MedXPress system, (pg 20)
- what pilots should know about refractive eye surgery, (pg 24) and how the FAA evaluates drugs for aeromedical use, (pg 28)

There's also a special two-page pullout infographic (pgs 18-19) that details the medical certification process.

The link to the online edition is: http://www.faa.gov/news/safety_briefing/.

FAA Safety Briefing is the safety policy voice for the non-commercial general aviation community. The magazine's objective is to improve safety by:

- making the community aware of FAA resources
- helping readers understand safety and regulatory issues, and
- encouraging continued training

Produced by the editors, *FAA Safety Briefing*, http://www.faa.gov/news/safety_briefing/

Address questions or comments to: SafetyBriefing@faa.gov.

Follow us on Twitter @FAASafetyBrief or www.twitter.com/FAASafetyBrief.

2013 NTSB Academy Opportunity

Civil Air Patrol has cultivated a close relationship with the National Transportation Safety Board in recent years. This partnering, along with a strengthening relationship between CAP, the FAA, and military services has served CAP well. Those organizations have also benefitted from their sharing with CAP. Since 2010, the Army National Guard has extended an annual invitation for CAP members to attend the NTSB's Aircraft Investigation Course, and paid the cost of tuition.

As 2013 is now upon us, CAP is again opening the application process for members to be considered for attendance at the next course offering August 5-16, 2013.

If you are interested in attending this two-week course, earning safety investigation certification from the world's premier aviation accident investigation board, and applying your new mishap investigation skills for Civil Air Patrol in a variety of high-profile mishap reviews, then please apply as follows:

- Submit a completed CAPF17 with the following information:
 - Title of Activity: NTSB Aircraft Accident Investigation Course
 - Location of Activity: NTSB Academy, Ashburn, VA
 - Dates of Activity: August 5-16, 2013
- Attach both a CAP resume and a professional resume that show an ongoing commitment to CAP, along with aviation and leadership qualities that demonstrate your likelihood of success
- Submit applications to your wing commander for endorsement and forwarding.
- Finalists are contacted by the National Safety Team which makes the final selection based on follow-on questionnaires and interview results.

Civil Air Patrol takes safety professionalism very seriously. Selectees will represent CAP at the NTSB Academy alongside classmates of various branches of the U.S. Armed Services.

Tuition is fully-paid by the Army National Guard. Food, transportation, and housing (hotel) is the personal responsibility of each student.

The application process opens 1 Jan 13 and all applications must be received with proper command endorsements by 31 Mar 13. Late applications will not be accepted.

For more information, contact your Wing or Region Director of Safety.

VISIT US ON THE WEB
WWW.GOCIVILAIRPATROL.COM

Discover, report, stop, share, listen, and learn. The things we have read about in this issue already have happened, so you are not allowed to experience these for yourself.

Remember to "Knock It Off" and slow down. For streaming dialogues on some subjects, remember CAP Safety is on Facebook and Twitter.

The dates of the Safety Officer College (CAPSOC) are June 10- 14, 2013 with travel days on the June 9th and 15th at Kirtland AFB, New Mexico. Applications will be received and students will be selected by each Wing Commander, and for staff officers assigned to the region HQ, Region Commander. Application closure is March 31st, 2013. Contact your commander for more information.

Got a great safety article that you would like to see in a future Beacon newsletter? Please send it to Lt Col Sharon Williams at safetybeacon@capnhq.gov.

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