



Spring 2019 Newsletter

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Welcome to a new feature of SCAUWG.ORG presented by Aviation Medical Examiner - Gregory J. Hanker, M.D. – Dr. Hanker is an orthopedic surgeon practicing at the Southern California Orthopedic Institute in Van Nuys.

Dr. Hanker's primary goal as an Aviation Medical Examiner (AME) is to assist the local aviation community in obtaining their medical certification, especially complex cases where FAA special authorization may be necessary.

The medical examination - flight physical- is often felt by most pilots to be a very anxiety producing and intimidating experience. There is a real fear of “failing” the physical and losing medical certification. This apprehension of being “grounded” is a serious threat to the pilot. But as I will subsequently explain - much of this threat is unfounded and basically arises because of the pilots’ lack of understanding of the rather complex and confusing FAA medical certification process.

Historically, the origin of the flight physical dates to 1926 with the Air Commerce Act. Pilots underwent medical examination to ensure that they were healthy to fly and did not have any “disqualifying conditions” that would cause “sudden incapacitation”. With the formation of the FAA in 1966, medical certification policy evolved; and medical standards for pilots were codified into a federal regulation: Title 14 CFR part 67.

Pilots frequently ask, “what is the purpose of the FAA’s medical examination?” The FAA answers that it is to determine whether the airman will have an unacceptable risk of being suddenly or subtly incapacitated operating an aircraft.

The FAA is betting that if the airman meets the established medical standards as outlined in the *Guide to Aviation Medical Examinations (AME guide)* they won’t be either suddenly or subtly incapacitated resulting in an accident.

The FAA has identified 15 disqualifying medical conditions that if present in the airman applicant will mandate that the AME not ISSUE/DEFER their medical certificate.

The FAA believes that if the pilot applicant presents to the AME with any of these 15 conditions he/she has failed to meet the established minimum medical standards for flying an aircraft. Six of these disqualifying medical conditions refer to the heart: chest pain, heart attack, heart disease, pacemaker, valve replacement and transplant. Three conditions are neurologic: epilepsy, disturbance of consciousness and loss of control of nervous system function. Three are psychiatric conditions: personality disorder, bipolar disorder and psychosis. The final three are diabetes mellitus, substance abuse and substance dependence.

As an AME, it is my charge during the flight physical to *ISSUE* the airman their medical certificate. If a disqualifying medical condition is known to be present, or is discovered during the flight physical, than the airman's application will need to be *DEFERRED* to the FAA's Aerospace Medical Certification Division (AMCD) in Oklahoma City for further review and consideration for a "waiver," or special issuance, in order to allow the airman to continue their flying privileges under their pilot certificate.

So, how does the *special issuance (SI)* work? At the discretion of the Federal Air Surgeon, an authorization for SI of a medical certificate, valid for a specified period of time, may be granted to the airman who did not initially meet medical standards...if the airman shows to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety for the period in which the "authorization" would be in force. The SI consequently allows the airman who did not qualify by FAA established medical standards to obtain a "waiver" if the airman can show low aeromedical risk and is unlikely to endanger public safety.

Since the process of SI must be done by the FAA - not the AME - the AME can facilitate the authorization process by assisting the airman to submit all the FAA require documents. Over 34,000 SI medical certificates were issued by the FAA last year; or approximately 6% of airman flight physical applicants. The key to success in the SI process is to prepare before the actual flight physical with your AME.

Specifically, how does the airman medical applicant prepare for the flight physical in order to minimize the amount of time necessary for the FAA to make a determination usually taking 60-90 days?

The answer is for the airman applicant to access the FAA's "*DISPOSITION TABLES*" published in the *AME guide*.

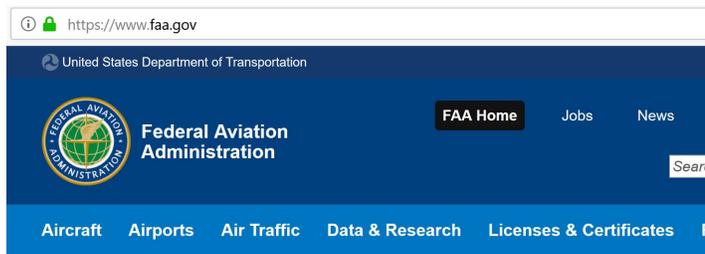
The *DISPOSITION TABLES* are used by the AME to assess the airman's aeromedical risk. Once a specific medical condition has been identified in the pilot's medical history, or by

the AME in the physical examination, the *DISPOSITION TABLE* for that specific condition gives the AME the guidance on how to proceed with the airman’s evaluation so as to either *ISSUE* or *DEFER* the medical certificate.

Those interested can access a *DISPOSITION TABLE* for your specific medical condition!

Simply follow this process:

- 1) Go to: www.FAA.gov
- 2) Select – “Licenses & Certificates” on the top light blue menu bar



- 3) Select & click – “Medical Certification” from the drop-down menu



On the “Medical Certification” page that appears you will be able to access several links associated with the flight physical process including MedExpress et al, as shown.

Medical Certification

Medical Certificates

- [Contact the Aerospace Medical Certification Division](#)
- [How to obtain a Medical Certificate](#)
- [FAA MedXPress](#) (online FAA Form 8500-8 application)
- [Questions and Answers](#)
 - [Deaf Pilot](#)
 - [Sport Pilot](#)
- [Request a Copy of Your Medical Certificate](#)
- [Locate an AME](#)
- [Locate a HIMS \(Human Intervention Motivation Study\) AME: MS Word, PDF](#)

- 4) While still on the Medical Certification page locate the bold title **Aviation Medical Examiners** and select “[Guide for Aviation Medical Examiners](#)”

Aviation Medical Examiners

- [Aviation Medical Examiner Home Page](#)
- [Aerospace Medical Certification Subsystem \(AMCS\) Online Support](#)
- [Aviation Medical Examiner Training](#)
- [Federal Air Surgeon's Medical Bulletin](#)
- [Guide for Aviation Medical Examiners](#)
- [Regional Flight Surgeon Contact Information](#)
- [When Your Pilots Use MedXPress ...](#)

which takes you to a new page entitled **Guide for Aviation Medical Examiners**. The *AME Guide* is the medical certification bible used by the AME, but it can also serve as an excellent reference source for the airman applicant to research the medical issues that would affect a favorable determination to *ISSUE* verses an unfavorable *DEFER* of their medical certification.

Under the heading **Methods to navigate through the Guide** locate the subtitle “Aeromedical Decision Considerations” and select “*Aerospace Medical Dispositions.*”

- Aeromedical Decision Considerations
 - [Aerospace Medical Dispositions](#)
 - [CACI Certification Worksheets](#)
 - [Disease Protocols](#)
 - [Pharmaceuticals](#)
 - [Special Issuances](#)
 - [Substances of Dependence/Abuse](#)
 - [Synopsis of Medical Standards](#)

6) On the page entitled **Guide for Aviation Medical Examiners – Application Process for Medical Certification** there is a blue chart listing “*Exam Item(s)*”.

Exam Item(s)

Items 21 to 40	Items 41 to 58
21-22. Height and Weight	41. G-U System
23-24. Statement of Demonstrated Ability (SODA); SODA Serial Number	42. Upper and Lower Extremities
25. Head, Face, Neck, and Scalp	43. Spine and other Musculoskeletal
26. Nose	44. Identifying Body Marks, Scars, Tattoos
27. Sinuses	45. Lymphatics
28. Mouth and Throat	46. Neurologic
29. Ear	47. Psychiatric Conditions
30. Ear Drums	48. General Systemic
31. Eyes	49. Hearing
32. Ophthalmoscopic	50. Distant Vision
33. Pupils	51. Near and Intermediate Vision
34. Ocular Motility	52. Color Vision
35. Lungs and Chest	53. Field of Vision
36. Heart	54. Heterophoria
37. Vascular System	55. Blood Pressure
38. Abdomen and Viscera	56. Pulse
39. Anus (No Disposition)	57. Urine Test
40. Skin	58. ECG (No Disposition)

Items 21 to 58 refer to each individual body part that is examined by the AME.

The airman applicant can then select any specific body part area that they feel may disqualify them from obtaining an *ISSUE* of the medical certificate. Selecting any *Item#/body part area* will take you to a specific webpage entitled: **Guide for Aviation Medical Examiners - Application Process for Medical Certification: Exam Techniques and Criteria for Qualification.**

Select Roman numeral III – “Aerospace Medical Dispositions”.

Guide for Aviation Medical Examiners - Application Process for Medical Certification

Exam Techniques and Criteria for Qualification Item 28. Mouth and Throat

- I. Code of Federal Regulations
 - a. First-Class: [14 CFR 67.105\(b\)\(c\)](#)
 - b. Second-Class: [14 CFR 67.205\(b\)\(c\)](#)
 - c. Third-Class: [14 CFR 67.305\(b\)\(c\)](#)
- II. Examination Techniques
- III. Aerospace Medical Dispositions

This will take you to a unique webpage entitled **Decision Considerations – Aerospace Medical Dispositions** that lists the most common conditions of aeromedical significance, and most importantly for the pilot applicant access to the **DISPOSITION TABLE** for that particular condition/disease

which then lists the course of action that must be taken by the AME.

DISPOSITION TABLES basically list risk assessment for each specific medical condition/disease, and the table provides guidance on how to proceed with the evaluation of that specific medical condition/disease.

Using the *DISPOSITION TABLE*: The tables are constructed as a hierarchy from low risk diseases/medical conditions to higher risk. Those conditions with low aeromedical risk, in most cases, will only require the AME obtain a history of the disease/medical condition; but the pilot applicant will usually not need to provide much objective background medical testing or personal physician evaluations.

Conditions with slightly higher risk may still be *ISSUED* by the AME under the FAA “*CACI*” program. (more on this CACI program to follow) .

With slightly higher risk diseases/medical conditions the airman applicant can familiarize themselves with the slightly more stringent medical criteria and/or testing necessary to meet the FAA standards for medical certification.

All other conditions are determined by the FAA to be a high risk and the AME must *DEFER* the decision on medical certification to the FAA’s AMCD for a definitive decision. The important point here, in regard to high risk medical conditions/diseases, is that the airman applicant can determine the exact medical tests that will be required of them in order to satisfy the FAA’s criteria for *ISSUE* of the medical certificate either directly, or via a *CACI ISSUE* or a **SI**, that is a “waiver”. In some instances these required tests, current or past medical records, and medical examinations can be quite onerous and expensive to obtain.

As an orthopedic surgeon I see many airman applicants with arthritis. In preparation for their flight physical I suggest that the airman applicant review the appropriate *DISPOSITION TABLE* regarding *ARTHRITIS*.

Let's look at an example of how the airman applicant can utilize the *DISPOSITION TABLE* to assist with their medical certification under the MedExpress system. Go through the selection process that I previously described in order to reach the *AME guide*.

Select "**Aerospace Medical Dispositions**" from this page and it will bring you to the "**Exam Techniques and Criteria for Qualification**" page with the blue chart showing Items 21 through 58 from the FAA form 8500-8 in the MedExpress application.

To find the body part in question - in this case "**arthritis**" would be a "**disease of the musculoskeletal system**" which would be **Item #43 "Spine and other Musculoskeletal"**.

When you select **Item #43** you are taken to the page that describes the application process used by your AME at the direction of the FAA for your medical certification.

Roman numeral III in "*Aerospace Medical Dispositions*" when selected takes you to the *DECISIONS CONSIDERATIONS* page where you can find your disease/medical condition - in this example "Arthritis".

Select *Arthritis* and you finally arrive at the FAA page with your applicable *DISPOSITION TABLE for Item 43. Spine and other Musculoskeletal - Arthritis*.

Search through the table "**Common Conditions and Course of Action**" remembering that the table is constructed with low risk diseases (osteoarthritis) on top, and high risk diseases (such as rheumatoid arthritis) toward the bottom. Say for example that you have arthritis in your knees - that would be osteoarthritis - and on occasion you take an oral anti-inflammatory medicine/NSAID to control the occasional flare-up of your knee pain. The *DISPOSITION TABLE* tells you that "since your knee arthritis symptoms are well-controlled with little persistent daily symptoms and no functional limitation (you can walk and carry out your activities of daily living)" the AME will **ISSUE** your medical certificate.

On the other hand, further down in the *DISPOSITION TABLE* you see "**other variants of arthritis that require meds other than NSAIDS**". This indicates to the AME/FAA that this is a more serious medical condition. The AME will now need to review pertinent medical reports from your treating arthritis doctor regarding your functional status and your response to the arthritis medicine that you are taking. You will need to have this

physician's report with you in preparation for your flight physical so that the AME can review it and determine that you are fit to fly - therefore *ISSUE*. Without your doctor's report the AME must *DERER* to the AMCD - a lengthy 60 to 90 day process that could have easily been avoided had you been aware of the necessity to obtain your medical reports ahead of time. You will now have to wait for the FAA's review process at the AMCD for either an *ISSUE* or a *SI/waiver*.

In certain diseases/medical conditions the AME can go a step further to *ISSUE* your medical certificate through the **CACI** process. *CACI* stands for **Conditions the AME Can Issue**. Notice in the lower section of this *DISPOSITION TABLE*, column 3 that states See CACI - Arthritis Worksheet. Select this and you are brought to the **CACI- Arthritis Worksheet**.

This *WORKSHEET* is your resource that will inform you exactly what is required for your AME to *ISSUE* your medical certificate:

- 1) a current status report from your treating physician indicating that your condition is stable
- 2) supporting documentation of any medical tests or medications that you are taking
- 3) in this CACI table format you can see information about your medical condition/disease that needs to be well controlled before your flight physical and documented to your AME ahead of the flight physical.

The *TABLE* lists the *CAUSE* of your arthritis - note the allowable arthritis is restricted to osteoarthritis, rheumatoid arthritis and psoriatic arthritis. If you have any other variety of arthritis - for example Lupus - this table indicates that you are not a candidate for a *CACI ISSUE* and your application will be *DEFERRED*.

The *TABLE* also displays acceptable arthritis medications, lists the specific tests that you will need to have accomplished ahead of time - for example CBC and metabolic blood panel. And especially noteworthy to the airman application is that if you are taking the medication Plaquenil for your arthritis this will require you to have previously accomplished the FAA form 8500-7 which is a comprehensive eye examination by your ophthalmologist.

If the medication you are taking is not listed in the table, it may not be an acceptable pharmaceutical approved by the FAA. You must let your AME know ahead of the flight physical all medications you are taking; so as to be certain that they are on the approved list. Non-approved medications will lead to a *DEFERRED* application.

In summary, by making use of the *DISPOSITION TABLES* the airman applicant will be well prepared to complete their flight physical with no delay in the issuing of their medical certificate. And if it is necessary for a deferred status, by having all the required documentation available ahead of the flight physical, as your AME, I could then import this into the FAA system with the assistance of our Regional Flight Surgeons' office greatly expediting the FAA approval process.

In our next quarterly newsletter – summer edition - I will go into detail about FAA *DISEASE PROTOCOLS* and describe how an airman applicant for medical certification can use these special protocols in conjunction with *DISPOSITION TABLES* to assist with preparation of the flight physical (see as a reference page 229 in the AME guide). I will illustrate the benefit of the *DISEASE PROTOCOLS* by using the *MUSCULOSKELETAL EVALUATION PROTOCOL* to formulate a plan for the handicapped pilot. I will also discuss in detail a common condition experienced by a substantial number of pilots - *hypertension*. We will look at how the *DISPOSITION TABLES*, *CACI WORKSHEETS* and *DISEASE PROTOCOLS* can be put to efficient use by the airman applicant with hypertension in preparation for their successful flight physical.

Good health and safe flying,
Gregory J. Hanker, M.D.
AMEPilot



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