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# Just for the Health of Pilots

By Glenn R. Stoutt, Jr., MD

## Topics and Issues

**C**ONSIDER THIS SITUATION: A 48 year-old male airman is markedly obese, smokes three packs a day, does not exercise, carries a high anger level, has a “short fuse” and a high-stress job, eats a diet loaded with salt, fat, and sugar, and has a blood pressure of 150/90. Throw in a cholesterol level of 290, a triglycerides of 300, and an HDL of only 22. According to the FARs, he *legally* has nothing that would disqualify him.

Yet, this pilot is a walking time bomb! And, there are many more just like him.

Did you know that about 70 percent of all medical problems are caused by faulty lifestyles?

With this in mind, about a year ago I began writing a monthly column called *Pilots' Health* for the Louisville [Kentucky] Aero Club. I mixed aviation medicine (FAA medical facts and standards) along with tips and discussions of such things as exercise, weight control, nutrition, and lifestyle. The acceptance was immediate and enthusiastic. I plan to put all the columns into a booklet for pilots in a few months, and will give each airman applicant a copy.

This is the first of several articles prepared for you pilots who read the *Bulletin* on matters about your health in general, especially as related to maintaining your FAA medical certificate. Questions and comments are welcome. I hope you enjoy the articles as much as I have enjoyed writing them—for the health of pilots.

I have selected six general topics for the columns:

### 1. PREVENTION AND MANAGEMENT OF HIGH BLOOD PRESSURE

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Over the years as an examiner I have found that elevated blood pressure (hypertension) has been a major concern. The new [September 1996] *Guide for Aviation Medical Examiners* gives **155/95** as the maximum allowable reading for immediate issuance of a medical certificate. Optimally, **140/90** or under is desirable. The first number (systolic pressure) is the pressure in your arteries when the heart contracts, and the second number (diastolic) is the arterial pressure when the heart relaxes. Reducing your weight and salt intake often will reduce high blood pressure.



### 2. DIET AND NUTRITION

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The three worst things for you to eat? Fat, salt, and sugar.

- *Pearl: Anything that comes out of a vending machine is nutritional poison.*

Lots of fat, sugar, and salt. Also, most processed foods contain too much salt. So-called “healthful” canned soups are laced with salt. Most low-calorie meals and foods are loaded with salt to make them taste better.

The four best foods? Probably bananas, potatoes (Irish and sweet), apples, and beans. The worst food? Hands down to the frankfurter with 70 percent of its calories from fat. Also contains some animal parts you don’t want to know about.

Should you avoid red meat? Not necessarily. Avoid *fatty* red meat.

### 3. WEIGHT MANAGEMENT

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If you are overweight, the aim should not be to **lose weight** but to **lose fat**.

*Woman's World*, a magazine I saw at a supermarket checkout line, had on its cover the promise to “lose seven pounds in three days!” This is fairly easy, as the weight loss would be mostly water. To lose seven pounds of fat would be almost impossible without surgery. Your body must burn 3500 calories to lose one pound of fat, so seven pounds times 3500 calories would require burning 24,500 calories in three days — *no way*.

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You need 15 calories per pound per day to maintain your weight with normal activity; you will lose weight on 10 calories per pound. So, a 200-pound person needs 3000 calories per day for normal activity and 2000 calories per day to lose weight.

#### 4. EXERCISE

*What is the best exercise?* Walking wins as the gold standard. Cost? A good pair of comfortable walking shoes. Less trauma to joints. Practically no risk of injury unless you are bitten by a dog or hit by a car. Saves on gas. Good way to burn calories; enjoy at any age.

*How much exercise do you need?* Absolute minimum is 20 minutes of moderately vigorous exercise 3 to 4 times a week. I would suggest 30 minutes daily, with a break of one day off. If you hit 45 to 60 minutes six days a week, you will be in excellent condition. More than this burns more calories and might be needed for competition training, but it will not make you healthier or promote optimum life span.

#### 5. TIPS AND PEARLS

I hope to give all information clearly and simply—and in some cases to give a “quick-and-dirty” take-home message, for example:

- *How much water do you need daily?*

A scientific answer would be 1 cc or ml (about 1/5 teaspoonful) per calorie. The Q&D answer is: *If your urine is clear, you are getting enough water.*

- *What kind of home blood pressure cuff should you buy?*

Get a digital readout cuff. If you pay much over \$45, you are paying too much; if you pay less, you are getting junk.

- *Calcium supplements?*

Most pharmacies have calcium carbonate preparations. Calcium citrate is slightly better absorbed, but costs more. Daily requirements are 1000-1500 mg.

- *How to tell if your diet contains enough fiber?*

A good rule of thumb: If your stool floats, you are getting enough.

- *Should you be rigid in following a specific regime?*

Don't try to stay on any program all the time. Life is too short. Eighty to ninety percent of the time is ideal.

#### 6. FAA MEDICAL STANDARDS

**The new FAA hearing standards.** An applicant must pass one of the following tests:

- **Conversational Voice Values** at six feet or better.
- **Speech Discrimination Values** at 70% or better.

Speech discrimination means that you can distinguish between words that sound alike, such as *bear, tear, wear, here, there, hair*, and so on. This replaces the old “whispered voice” test.

I've rambled enough in this sampler. The next columns will be on specific subjects.

*Yours for good health and safe flying,*

**Glenn Stoutt, MD**

*Dr. Glenn R. Stoutt, Jr., is a partner in the Springs Pediatrics and Aviation Medicine clinic, Louisville, Ky., and has been an active Aviation Medical Examiner for 45 years. While he has not flown in recent years, he once held a commercial pilot's license with instrument, multiengine, and CFI ratings.*

*Note: The views and recommendations made in this article are those of the author and not necessarily those of the Federal Aviation Administration.*