

## WHEN THE PILOT'S HEART FLUTTERS

by Richard A. Hansen, M.D., AME

The phone rang, and it was a pilot friend with a medical question. He had noticed that his heart beat was irregular, and at times seemed to be skipping a beat. Is that serious? he wondered. Or, a sign of impending heart trouble? We agreed to meet in my office, for some further testing, and to talk about the circumstances of these worrisome palpitations.

Like a rough-running engine, after starting cold and taxiing to the run-up area, an irregular heart beat can be cause for concern. And there is no knob to pull, like the carb heat, or the fuel knob to adjust for a leaner mixture, which for most single engine piston planes does the job of cleaning carbon, clearing plugs, and developing power for a smooth take off and climb.

Fortunately, most of the causes of cardiac palpitations are quite benign, meaning they are not a sign of heart disease, or reason for ongoing worry, or fear of being grounded. In younger pilots, such symptoms are most often caused by lifestyle factors, such as overweight, lack of exercise, fatigue, stress, or the effects of caffeine. Found in many beverages such as coffee, tea, and cocoa, or cola-flavored sodas, caffeine is potent as a heart irritant. Just as it enhances alertness, and borrows a little energy from reserve stores for immediate use, caffeine also contributes toward the pilot's fatigue, encouraging overwork when he needs rest, or making a person unable to relax or fall asleep, when the pillow and bed are beckoning.

In older pilots, which the FAA considers all of us over 40, palpitations can also be caused by problems within the heart itself, or become a warning symptom of other diseases such as diabetes or hyperthyroidism. Your physician will usually perform several tests, such as blood profiles, an electrocardiogram, or more advanced testing such as an echocardiogram (ultrasound), the Holter monitor (to evaluate rhythm disturbances during 24 hours or more), a stress electrocardiogram on the treadmill, or additional radiologic studies. Then we'll know for sure whether the pilot is fit to fly, or needs some ground time for a modification of lifestyle, or trial of medication.

Military pilots have all too often used stimulants such as amphetamines to keep flying when exhausted, with the hope that such stimulant drugs can enhance performance, and stay alert and awake for the successful completion of their mission. However, just as a plane which takes off must also eventually land, so the pilot who guzzles the coffee, or pops a powerful pill to rev up his nerves, must also eventually come down. Commonly, that means a period of anorexia, abnormal euphoria or sadness, inability to sleep, high blood pressure, the "jitters," or a unwelcome personality change if not outright depression.

To fly safely, a pilot needs to be rested, not exhausted. He needs to be hydrated, with adequate water intake – not alcohol, soda, or coffee. The aviator's blood glucose need to be replenished regularly, with regular high-quality meals – whole grain cereals or bread, fresh fruit or vegetables, a handful of nuts – giving his body high octane, equaling the 100LL or Jet-A which

flows from the wing tanks, chosen carefully according to the engine design and the manufacturer's POH. Stress factors in the pilot's life need to be addressed, whether from a household situation or the workplace or local airport politics. Flying takes all a pilot has in wits and concentration, and on cross-country excursions not a little endurance and careful planning.

Fortunately, for my pilot friend, his palpitations resolved quickly when he curtailed his coffee consumption. Daily exercise and an extra hour of sleep at night, and enough understanding of his physiology to put his mind at rest, and the problem resolved. There was no need to ground him, yet the experience was helpful in providing rationale for a personal tune-up. We should not have to worry when we fly, about the plane, nor about our health. I often tell my pilot friends, to see a doctor whenever there are questions about their fitness to fly. Never worry about reporting another visit on the FAA form at your annual or biennial "medical." It's much better to be safe than run the risk of overlooking potential illness or cardiac complications. Flying is not just about us. It has to do with our family, our passengers, our privileges, and the community living below our flight levels.

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*[Doctor Hansen, author of the popular book on home health care, **Get Well At Home**, currently serves as medical director of the **Emerald Valley Wellness Clinic**, and its **Live-for-Health Seminars** in Creswell, Oregon. Pilots who for health reason are having trouble passing their medical should contact us. For further information or inquiries, contact: [clinic1@emeraldwellness.com](mailto:clinic1@emeraldwellness.com)]*