

Health preservation programme for pilots

Up to the age 48 years the chances of rejection are fairly small. In the age group 48 to 54 years there is a sharp increase with a peak at 51 and 52 years mainly due to heart/vascular diseases. After 54 years the chances of rejection decreases again. According to the FAA report age-specific denials for airline pilots increase to the highest at age interval 55 - 59 years and according to Russian statistics the average age of medical rejection is 48 years. Statistical information indicates that a high percentage of licence denial due to medical reasons can be avoided. Below is a breakdown of the most frequent causes and some common sense suggestions on how these can be avoided.

Causes for a loss of medical to exercise privileges of a flying licence

Cardiovascular disorders

Ischaemic heart disease - insufficient circulation due to blockage of the arteries
Hypertension - high blood pressure
Disrythmias - irregular heart beat

Neurological disorders

Head injuries including neurosurgery
Headaches including migraine
Epilepsy / unexplained loss of consciousness

Ophthalmological disorders

Trauma, malignancy, rare progressive degenerative disorders, retinal detachment and abnormal eye axis
Undergoing a LASIK (laser treatment) procedure would grounding for a temporary period

Oncological disorders

Malignant melanoma (skin cancer)
Apart from cancer of the colon, the other most common malignancies are that of lung, bladder and prostate

Psychiatric disorders

Depression
Stress related disorders

Ear, nose and throat pathology

Sinus and Eustachian tube disorders resulting in balance and hearing problems

Precautionary measures

Cardiovascular

The risk factors for cardiovascular diseases can be reduced by:

► *Diet*

The basic principles of a healthy diet include:

Eat a wide variety of foods. Eat less fat, especially saturated fat such as skin, red meat, dairy products and eggs. Lean meat such as fish and poultry is more healthy. It is important that dietary fats and oils are consumed fresh, unoxidised, not reheated too often and that the daily intake includes plenty of monounsaturated oils rather than polyunsaturates. Pan fried meals are unhealthy. Barbecued foods cause molecular change and when ingested, is considered to be carcinogenic. Eat more carbohydrate foods, especially those rich in fibre. Eat regular meals. Avoid being overweight. Use alcohol in moderation.



Up to the age of 48 the chance of failing a medical are fairly small after 48 there is a sharp rise peaking at around 52 these rejections are mainly due to cardiovascular problems.



Regular exercise not only improves general health and well being, it has also been shown to be a good way of reducing stress

► *Exercise*

Regular exercise may increase levels of HDLC (high density lipoprotein cholesterol) as well as help control weight, reduce blood pressure and stress levels.

► *Smoking*

STOP SMOKING

► *Neurological*

Take care to avoid head injuries.



Ophthalmological

Invest in a good pair of sunglasses that fulfil the following requirements:

The quality of the lens is particularly important. The lens should be made from distortion-free, neutral tint, ground and polished optical material. Since any sun-

glass lens reduces the level of light and thus causes the pupil to dilate and potentially allow a greater amount of harmful UV radiation to enter the eye, the lens must provide 100% protection against UVB and at least 99.5% protection against UVA. As UVB causes sunburn, blistering and potential skin cancer it is the big concern. UVB is absorbed by the cornea and the lens of the eye. UVA is mainly absorbed by the lens of the eye. Elimination of UV does not affect perception of visual images.

The shorter blue light waves can't be properly focused inside your eye. At times, they focus in front of the retina, causing "blue blur". This blue blur causes eye strain and fatigue. The lens should filter at least 95% of this high energy visible radiation. This will result in less glare, more contrast, and clearer, sharper images.



Oncological

► *Skin cancer*

Avoid unnecessary exposure to harmful ultra violet radiation.

► *Cancer of the colon*

Be alert to any changes in bowel habit e.g. alternating diarrhea and constipation, blood in stool and development of hemorrhoids.

► *Cancer of the lung and bladder*

Don't smoke.



Psychiatric

► *Definition of stress*

Stress is defined as a feeling of tension that is both emotional and physical. Signs that you may have an unhealthy level of stress include

► *Changes in your body*

High blood pressure

Muscle tension

Disturbed sleep

Knots in stomach or nausea. (Knots in the stomach might refer to epigastric discomfort which may be due to gastric or duodenal peptic ulceration)

Headaches

► *Changes in your thinking*

Trouble concentrating

Lost self-confidence

Lapses of memory

Poor judgement

Undue feeling of being under pressure

► *Changes in your emotional state*

Resentment, cynicism

Anger and irritability

Feeling "on edge" and agitated

Feeling down and hopeless

Moodiness

► *Changes in your actions*

Increased smoking

Alcohol abuse

Withdrawing from others

Non-stop talking

Fidgeting

Absenteeism

These are some of the more common expressions of unhealthy levels of stress. It is important to attend to any signals that you may be unhealthy stressed.

 **Managing stress**

► *Laugh more*

Laughter is one of the best ways to manage stress. It is also believed that laughter can also boost your immune system functioning.

► *Be flexible*

Being more flexible in your personality helps you manage stress by allowing you to try different ways of talking to people and dealing with events rather than acting out of habit or doing what makes you feel safe.

► *Breathe*

When one becomes stressed, the body demands more oxygen. Hence, breathing becomes more rapid and the heart rate increases. Breathing also becomes more shallow resulting in an insufficient and unhealthy exchange of oxygen and waste gasses. In this way poor breathing contributes to anxiety and fatigue making stressors harder to cope with.

Be aware of your breathing. Expand your abdomen as you breathe to the count of four; hold the breath for a moment and exhale to the count of four.

► *Say "no"*

Reduce the demands that are placed on you. Do what takes care of you, your family, your career and your relationships. Everything else you agree to is a bonus and should only be considered if you have time and energy.

► *Set reasonable goals*

Set reasonable goals and strive to do your best. Learn from failure but don't beat yourself up when you make a mistake. Be a bit easier on yourself. Don't get caught in a perfection trap.

► *Get active*

Regular aerobic exercise is a healthy and effective way to manage stress. In addition to improving your physical well-being, it can have a positive effect on your mood and your body's immune system.

The greatest benefits of exercise occur when your heart beats to within 50 to 75% of its maximum. The maximum heart rate for men is 220 beats/minute minus their age and for women 200 beats/minute minus their age. These benefits occur if the activity is sustained for a total of 30 minutes in one day, three to four days a week.

► *Eat well*

Ensure that you nourish your body with the nutrients it needs to combat stress and limit your intake of food that aggravate stress. This means eating a variety of fruits and vegetables, grain, dairy products and some meat if you like.

► *Talk to others*

Make an effort to socially interact with people.

► *Cut down on caffeine*

Caffeine (coffee, tea, colas, chocolate) is a strong stimulant that causes your body to be stressed.



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