

Obesity Information for Pilots and Air Traffic Controllers

Obesity & Health

Obesity is defined as a body mass index (BMI) in excess of 30 by the National Institute for Health and Clinical Excellence (NICE) <u>NICE Guidelines on Obesity</u>. BMI is calculated by dividing a person's weight in kilograms by the square of their height in metres <u>BMI calculator</u> (See Table 1). Being overweight or obese can substantially increase the risk of acute and chronic medical conditions summarised in Table 2 below:

Classification	BMI (kg/m²)
Healthy weight	18.5–24.9
Overweight	25–29.9
Obesity I	30–34.9
Obesity II	35–39.9
Obesity III	40 or more

Table 1: Classification of BMI

Greatly increased risk	Moderately increased risk	Slightly increased risk
Type 2 diabetes	Coronary heart disease	Some cancers
Insulin resistance	Hypertension	Reproductive hormone abnormality
Gallbladder disease	Stroke	Impaired fertility
Dyslipidaemia	Osteoarthritis	Polycystic ovary disease
Breathlessness	Hyperuricaemia (Gout)	Low back pain
Sleep apnoea	Psychological factors	Anaesthetic risk

Table 2: Relative risks of health problems associated with obesity

Obesity is best prevented and treated by careful attention to lifestyle, diet and exercise. Obesity may be secondary to a number of particular endocrine / hormonal conditions and this guidance should be read in conjunction with general or specific guidance related to the individual condition.

Treatments that Affect Medical Certification

Medication

Orlistat or other medications which reduce the absorption of dietary fat, when combined with a change in lifestyle, can be used to treat obesity in individuals with a BMI in excess of 30 or in excess of 28 if other risk factors such as hypertension, diabetes or high cholesterol are present. Although available over-the-counter applicants should discuss these treatments with their GP or AME. If applicants do commence treatment, they must notify their AME and cease flying / controlling for two weeks to ensure no adverse effects from the medication. Side-effects might include flatulence, oily or leaky stools, abdominal pain and bloating, headaches and anxiety.

Appetite suppressants are disqualifying for medical certification, and they are not recommended for the treatment of obesity.

Surgery

Bariatric surgery promotes weight loss by altering the anatomy of the digestive system and limiting the amount of food that can be eaten / digested, for example, gastric bypass or gastric banding. It is a major procedure that is usually considered as an option if an individual's BMI is 40 or more, or between 35 and 40 if other risk factors that could be improved by a reduction in weight are present. Other criteria also need to be fulfilled and this option should be discussed with a GP / specialist.

If it is deemed an acceptable clinical treatment applicants must notify their AME as initially an 'unfit' assessment will be required for a period of up to 3 months post-surgery, which will be dependent upon the type of procedure performed and recovery. Endoscopic procedures will significantly reduce this period. Detailed reports will be required to confirm that there has been a full recovery from the procedure and an absence of any incapacitating side-effects. A final assessment with their AME will be required before applicants can be assessed as 'fit' again. Any other treatment or procedure that applicants might be considering must be discussed with their AME.

Aeromedical Considerations

Beside the potential impact to health, the nature of the operating environment in relation to BMI should also be considered.

A <u>Medical Flight Test</u> may be required to ensure that pilots can safely complete their checks, and have full and free movement to reach all switches and controls without any impedance. They will also need to demonstrate that they can safely and quickly prepare and evacuate the aircraft in case of an emergency. Separate tests may be required if they fly substantially different types of aircraft, for example, a commercial pilot who also undertakes private flying.

Air Traffic Controllers (ATCOs) with a BMI greater than 35 will need to undergo a functional workplace assessment (ATCO Functional Test) with their supervisor to ensure that they can work without restriction and evacuate their workplace quickly in the event of an emergency. This is particularly important if an ATCO is based in a control tower or a remote location.

Pilots of light aircraft are reminded that crew (and passenger) weights are important factors for aircraft performance and centre of gravity, and that accurate weights should be measured before flight.

Regulatory Requirements

Initial applicants for a medical certificate issue should undergo further assessment, as set out below, if their BMI is 35 or above. Existing pilots / ATCOs whose BMI exceeds 35 require investigation within 2 months. A TML should normally be applied if a certificate is issued.

Assessment by AME, GP or medical specialist

- Medical history & lifestyle
- BMI
- Waist & neck circumference
- Lipid profile
- Blood glucose
- Urinalvsis
- Blood pressure
- Epworth score
- Cardiovascular QRISK score for Class 1 and 3, if the risk is above 10% in 10 years an <u>annual</u> exercise ECG is indicated (with review by cardiologist if abnormal)

Medical Flight Test (MFT) or ATCO Functional Test

An MFT or ATCO functional test is required if the BMI exceeds 35 to ensure that applicants can safely exercise the privileges of their licence (see Aeromedical Considerations above).

- For Class 1 by TRE, SFE or FE(A), FE(H)
- For Class 3 by unit examiner
- For Class 2 or LAPL by FE(A), FE(H)

Follow-up

If parameters, medical tests and the flight / functional test are acceptable, further reviews with the AME (or GP who issued a LAPL) are required at each periodic medical examination until the BMI falls below 35. If the BMI increases by 2.5 points since the last flight / functional test, then it shall be repeated.