

Cardiovascular disease risk stratification (ACSM, 2014)

Cardiovascular disease risk factors		Normal	Special attention 2 or more = moderate risk Signpost to GP	Medical referral
Age.		Male <45 years. Female <55 years .	Male >45 years. Female >55 years.	
Family history.	MI or sudden death in 1st degree relative. Male <55 years. Female <65 years.	No family history.	Positive family history.	
Smoking.		Non-smoker.	Current smoker (1+/ day) or quit within the last 6 months.	
Exercise (physical activity levels for a minimum of 8 weeks).		≥30+ mins CV 3-5 times/week.	<30 mins CV 3-5 times/week (inactive).	
Blood pressure.	SBP & DBP (mmHg).	≤139 and ≤89	≥140 or ≥90	≥160 or ≥100
Cholesterol.	Total cholesterol (mmol/L).	≤5.2	>5.2	>5.7
	LDL cholesterol (mmol/L).	≤3.4	>3.4	
	HDL cholesterol (mmol/L).	≥0.9 (or 25%+ of Total)	<0.9 (or <25% of Total)	
Impaired glucose fasting (Diabetes).	Fasting blood glucose (mmol/L).	≤6.0	6.1–6.9	≥7.0 Diabetic.
Other factors		Normal	Special attention May require clearance if other risks present	Medical referral
Resting heart rate.		≤89 bpm	90–99 bpm	≥100 bpm Contraindication for exercise.
Body Composition.	Body fat (% body fat).	Male 18-25% Female 25-30%	<6% or 26-30% <14% or 31-40%	>30% >40%
	Waist-to-hip ratio.	Male <0.85 Female <0.75	>0.9 >0.8	
	BMI.	18.5–24.9 kg/m ²	25–29.9 kg/m ²	30+ kg/m ²
Alcohol consumption.	Units of alcohol per week.	Male ≤21 units. Female ≤14 units.	Male 29–42 units. Female 22–35 units.	Male ≥43 units. Female ≥36 units. Cirrhosis.
Lung function.	Forced expiratory rate (FER).	Within predicted range values.	Below predicted range values.	Known pulmonary disorder unless under control.

Recommended levels of supervision for assigned risk (ACSM, 2014)

Risk status	Criteria	Activity guidelines Recommended level of supervision
Low.	Men <45/Women <55 years of age who are asymptomatic and meet no more than 1 risk factor threshold: <ul style="list-style-type: none"> Family history. Smoking. Hypertension. High cholesterol. Impaired fasting glucose. Obesity. Sedentary lifestyle. 	Medical exam not necessary. Supervision of exercise test not necessary. Activity – Unsupervised.
Moderate.	Men ≥45/Women ≥55 years or those who meet the threshold for 2 or more risk factors.	Medical exam recommended prior to vigorous exercise (>60% VO ₂ max). Supervision of maximal exercise test (not necessary for submaximal test). Activity – Supervised.
High.	Individuals with one or more of the following signs and symptoms: <ul style="list-style-type: none"> Anginal pain or discomfort. Shortness of breath at rest or with mild exertion. Dizziness or syncope. Orthopnoea or paroxysmal nocturnal dyspnoea.* Ankle oedema. Palpitations or tachycardia. Intermittent claudication. Known heart murmur. Unusual fatigue or shortness of breath with usual activities. Or known cardiovascular, pulmonary or metabolic disease: <ul style="list-style-type: none"> Cardiac (myocardial infarction, coronary artery bypass surgery, coronary angioplasty or angina). Cerebrovascular (stroke, transient ischaemic attack). Peripheral vascular disease. Pulmonary disease (chronic obstructive pulmonary disease/cystic fibrosis or asthma). Metabolic disease (diabetes (type 1 and type 2), thyroid, renal or liver disease). <p>*Orthopnoea – breathlessness (dyspnoea) occurring at rest in the recumbent position that is relieved by sitting upright.</p> <p>Paroxysmal nocturnal dyspnoea – breathlessness, which usually begins 2-5 hours after going to sleep.</p>	Medical exam recommended prior to moderate and vigorous exercise. Supervision of submaximal exercise test and maximal test. Activity – Supervised.