MEDICAL CONDITIONS AND EXERCISE

Medical conditions are rarely a total bar to exercise. Others involved in helping, encouraging, coaching or teaching people with medical conditions may be made aware if appropriate to help support the individual concerned and to maintain a safe environment for all. Common examples include;

ASTHMA	Although clinical practice guidelines note that exercise is a potential trigger of asthma, the National Asthma Education and Prevention Programme advocates promoting physical activity and the Scottish Intercollegiate National Guidelines Network suggests that physical training be viewed as part of the general approach to improving the lifestyle of patients with asthma. Good control should be demonstrated. Improvements in control of asthma may be required when symptoms limit performance.
COPD	Exercise, done correctly and safely, is one of the best things a patient can do to reduce dyspnoea. Almost all individuals with COPD have dyspnoea, and because of it, they tend to do less and less. The less they do, the less they are able to do, and eventually they become too weak to do much at all. This is called progressive de-conditioning. De-conditioning is losing fitness from lack of exercise. Exercise itself cannot reverse COPD, but it can change the way a patient feels, breathes, and functions. Exercise cannot reverse lung disease but it can reverse de-conditioning and improve your quality of life.
CARDIOVASCULAR RISK	Evidence continues to accumulate that taking up exercise to prevent cardiovascular disease, or to reduce the risk of recurrence in those affected by it, is efficacious and not associated with any appreciable harmful effects, if performed with appropriate safeguards.
ANGINA PECTORIS AND INTERMITTENT CLAUDICATION	Exercise may be beneficial and enable the person to extend the time before the pain of angina or claudication demands cessation. Exercise should be unhurried and attempts to increase the distance should not be too ambitious. Glyceryl Trinitrate may be used before exercise. Beta Blockers may extend the duration of exercise in angina (although generally they are an impediment because they slow the heart rate response to exercise)
OTHER HEART DISEASE	Strenuous exercise should be avoided in aortic stenosis and hypertrophic obstructive cardiomyopathy (HOCM) as it can cause sudden death. Hypertension is only a contra-indication to exercise if it is severe and uncontrolled. Once reasonably controlled exercise is beneficial
DIABETES	Regular physical activity improves insulin resistance and lipid profile (reduction in triglyceride and increase in high-density lipoprotein (HDL)) and lowers blood pressure (BP), although BP will rise during exercise. Exercise metabolises glucose and increases tissue sensitivity to Insulin. This is important with vigorous exercise in those on

	Insulin. When vigorous exercise is anticipated, the diabetic should reduce Insulin and increase carbohydrate 20 minutes before exercise "Fast Glucose" should be available for symptomatic hypoglycaemia. It is important to remember that rehydration after exercise should not be alcoholic as alcohol depresses blood glucose.
ARTHRITIS	As a general rule, patients with arthritis benefit from exercise, although goals should be realistic. The exception is an acute inflammatory arthritis that needs rest
OSTEOPOROSIS	Exercise is important in building strong bones in your early years but also throughout life in strengthening muscles and bones and reducing the risk of a fragility fracture. Exercise does this partly by directly strengthening bone and partly by maintaining core stability to make falls far less likely. Suitable exercises will help patients gain confidence and reduce the risk of breaking a bone. Taking enough exercise will not only make a patient feel good and reduce the risk of osteoporosis and fractures but will also reduce the risks of many other conditions including cancer. Exercise helps with many types of pain and stiffness, and specific exercises can also help with the pain and problems caused by fragility fractures.
DEPRESSION/MENTAL ILLNESS	Being depressed can leave patients feeling low in energy, which might put them off being more active. Regular exercise can boost mood if you have depression, and it's especially useful for people with mild to moderate depression. If you are active you are • less likely to be depressed, anxious or tense • more likely to feel good about yourself • more likely to concentrate and focus better • more likely to sleep better • more likely to cope with cravings and withdrawal symptoms if you try to give up a habit, such as smoking or alcohol • more likely to be able to keep mobile and independent as you get older • possibly less likely to have problems with memory and dementia.

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