



SEXUAL ACTIVITY AND HEART DISEASE

Introduction:

Problems with sexual activity are common in both men and women who have cardiovascular disease. Most people are reluctant to discuss sexual problems but are extremely grateful if given the opportunity. Both psychological and physical causes may be relevant since there is a myth that somehow sexual activity is more lethal than other equally strenuous forms of exercise. Discussion about them should be routine for physicians who manage patients with heart disease. Erectile dysfunction is a particularly common symptom in men and is a predominantly organic in origin. It may be the first sign of occult vascular disease or occur in the course of disease progression and following acute events. Problems may be made worse by some medications.

How demanding is sex on the heart?

Middle aged people with longstanding partners engage in sex approximately twice a week. The duration of the act is about 10-15 minutes. Other comparable cardiovascular stresses occur far more frequently during the routine day for an average, sedentary, unfit middle aged person. With a caring partner sexual activity can be pleasurable and stress free. The maximal heart rate with sexual activity is approximately 120 beats per minute (less if the patient is taking rate limiting drugs such as a beta-blockers) and this will last for less than 3 minutes. The energy demand or metabolic equivalent (1 METs = 3.5ml oxygen/kg body weight/minute) of intercourse varies from 2-6 METs depending upon how vigorous it is. This and the oxygen cost to the heart is similar to climbing two flights of stairs or performing ordinary occupational tasks.

Sexual activity after heart attacks

It is an important part of the rehabilitation process to discuss and reassure people about sex after significant cardiovascular events. Most patients can return to a normal sex life after a coronary thrombosis. Advice should be based on knowledge of previous levels of activity, future intentions and cardiovascular status. The needs of the single person must also be considered. Anxiety and inhibitions may be greater causes of sexual debility than the severity of the infarction and any subsequent cardiac decompensation. Sexual activity can begin once modest levels of exercise become part of the

normal lifestyle and this may be within days rather than weeks. Masturbation can be tried prior to intercourse for reassurance regarding orgasm.

Erectile dysfunction (Impotence) and cardiovascular disease

Erectile dysfunction is a common problem for people with multiple risk factors and/or overt cardiovascular disease. It can be caused or aggravated by some medications but altering drug regimes is unlikely to reverse the problem unless there is a definite temporal relationship. It may be the first manifestation of occult cardiovascular problems and all patients presenting with erectile dysfunction should be fully assessed in this respect as well as screened for diabetes and dyslipidaemias. All current available treatment for impotence are suitable for a cardiovascular patient and, if used according to the instructions, do not increase the cardiovascular risk. These treatments include: oral sildenafil, intracavernosal injection or intraurethral therapy and vacuum pump devices. However, special consideration is needed for two groups of patients. Firstly those on warfarin and secondly those on nitrate drugs who wish to try sildenafil. Warfarin is not an absolute contraindication but may lead to increased risk of bruising with injection treatment or bleeding with intraurethral therapy and troublesome bruising with vacuum pumps (probably best avoided). The combination of nitrates (and drugs such as nicorandil) with sildenafil is contraindicated. They must be avoided as they can produce significant hypotension and are potentially fatal. It may be that an alternative anti anginal treatment can be used. Alternatively, if the only preparation used is a tablet or spray as required sildenafil can be used provided there is a 24 hour gap between the use of the nitrate and sildenafil. This needs to be very carefully explained and emphasised. On no account should a nitrate be used if angina occurs during intercourse.

Conclusion:

Heart disease itself is not a contraindication to sexual activity. However, sexual dysfunction is an important problem in the context of cardiovascular disease. Available treatments of erectile failure with either oral sildenafil, injection or intraurethral therapy, or vacuum pumps are safe and effective provided that potential adverse drug reactions are avoided.

Further Reading:

Hellerstein H K & Friedman E H (1970). Sexual activity and the post-coronary patient. Archives of Internal Medicine; 125(6):987-999

Morganteler A (1999) Male impotence Lancet 354. 1713-18.

Cheitlin M D et al (1999). American College of Cardiology/American Heart Association Expert Consensus Document. Use of sildenafil (viagra) in patients with cardiovascular disease. J. Am. Coll. Card. 33(1): 273-282.