Exercise, Health and Fitness in Ageing

1 (a)

Throughout life changes to body tissues and organs are occurring which are not due to disease but are part of the normal ageing process. An example of one of the earliest obvious changes is the need for reading glasses in midlife; as a result of age, changes occur within the lens of the eye so that the lens is less able to focus on near objects. As age increases, other changes gradually become more obvious. These may include difficulty hearing in a crowded room, change in gait, which becomes wider based with smaller steps and more unsteady, and difficulties in passing urine, for men, due to enlargement of a gland situated near the neck of the bladder (prostate gland).

Ageing changes alone may result in increased care or mobility needs. Disability, which in a younger person would be of a minor nature, can become very significant in the presence of changes due to ageing. Ageing changes occur in bones and joints, and may result in osteoporosis (thinning of the bones) and arthritis. Muscle power and strength are generally reduced. An important change that occurs with increasing age is a change in gait and balance. Elderly people tend to walk with short, shuffling steps, with fewer tendencies to swing their arms.

Hearing and vision declines with age. Many elderly people with hearing impairment have difficulty in understanding speech in noisy surroundings, or when speech is less distinct or delivered a little faster than usual. Glaucoma and cataracts occur more commonly in older people, and may impair vision.

Mental changes occur with increasing age. Elderly people have a slower reaction time and may be slow to grasp new ideas. They may have difficulty in remembering new information, i.e. impairment of short-term memory, making them appear forgetful.

Older people are also more likely than younger people to be affected by more than one disabling condition at a time, and the interaction of the various conditions will have to be taken into account in considering their care and/or mobility needs. For example, the effects of congestive heart failure, for which the treatment is water tablets (diuretics), are much greater on someone who suffers from incontinence of urine; long-standing rheumatoid arthritis may be combined with peripheral vascular disease which may lead to a lower limb pain or amputation and causes much greater mobility problems than would either condition alone; poor sight and poor hearing are a common and very disabling combination.

The effects of ageing on a person who already has an existing disability can be greater than would normally be the case in a younger person. For example, arthritic changes due to age in the shoulders of a

wheelchair user may cause a significant reduction in mobility and general independence.

(b)

Exercise increases the heart rate, building up the heart muscle, and increasing oxygen supply to the body. The improved circulation helps give a feeling of well-being. Exercise helps to prevent stiffness in the joints and builds up the strength of surrounding muscles. If older people are physically inactive, the tendency towards stiffening with age is much more likely to happen. The general tone of your body improves with exercise. You feel firmer, fitter and more energetic. Exercise can also improve your ability to cope with stress and improve your quality of sleep.

2.

Competition is the ultimate test of performance capability, and is therefore the best indication of training success. However, when trying to maximise performance, it is important to determine the athlete's ability in individual aspects of performance. Fitness testing attempts to measure individual components of performance, with the ultimate aim of studying and maximising the athlete's ability in each component.

Of the many benefits of fitness testing, the major use is to establish the strengths and weaknesses of the athlete. Comparing test results to other athletes in the same training group, the same sport, or a similar population group does this. This would be generated from my club, for which my sport is Football. By comparing results to successful athletes in your sport, you can see the areas that need improvement, and the training programme can be modified accordingly. This way valuable training time can be used more efficiently. This is adapted from player to player and by positions. Generally centre mid-fielders would be more all round players with better cardiovascular fitness, strikers are quicker to react and accelerate faster whereas defenders are stronger. Therefore training sessions for individual players would be different even if they play at the same position due to their own strengths and weaknesses.

In my case for example, I used to be positioned as a striker but have been moved for the last year to central midfield to have further control on the game. However as I now play in the adult league, strength has become a far more intense factor of Football. Therefore I have increased the basis of strength training throughout my sessions, for example on a weekly basis.

Fitness testing is used as a benchmark for competition and goal setting. Therefore at this current stage of the pre-season it is important to build fitness up for the season, which starts soon. Fitness is most probably at its highest in mid-spring because there are many games played and training is geared more towards skill due to this.