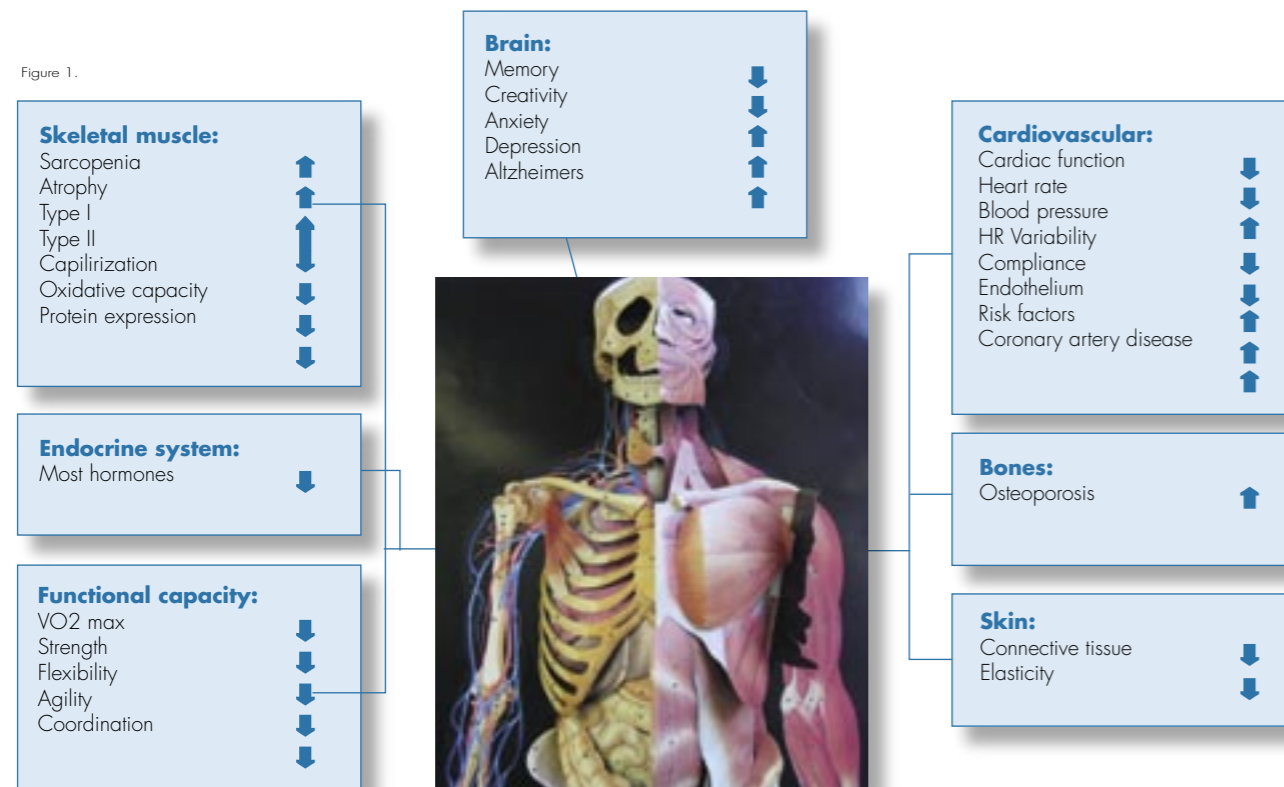


Is physical exercise the 'polypill' of anti-ageing medicine?

We often hear about the latest discovery of a new and exciting anti-ageing therapy, machine, pill or surgical intervention. Yet the simplest and possibly most effective method for living a longer, healthier and fuller life is actually the closest thing we have to an 'anti-ageing pill'regular exercise.

Professor Wayne Derman, our exercise expert on the International Institute for Anti-Ageing panel, considers the processes of ageing. "The biological process of ageing is associated with altered function of most human organ systems - shown in Figure 1:

There is presently mounting data to suggest that specific forms of exercise training, in appropriate doses (duration, frequency and intensity) can retard and in some cases even reverse the changes in the body shown below. This is particularly relevant to the chronic diseases associated with increasing age."



- In type 2 diabetes for example (when the body becomes resistant to the effects of insulin causing blood sugar levels to soar) strength training can improve the sufferers sensitivity to insulin, (1) effectively helping to reverse the disease.
- The risk of developing non-Hodgkin's lymphoma can be reduced by 41% in women who do 4-5 hours per week of moderate to vigorous physical activity. (2)
- And exercise enhances blood flow to the brain improving cognitive processing, reasoning and memory, as well as enhancing creativity. It is also profoundly antidepressant (3)

So why is exercise such a good anti-ageing intervention? In short – because it is effective at various levels in the biological system. In the case of cardio vascular disease, for example, there is much talk about the development of a 'polypill' the constituents of which are aspirin, a statin drug for lowering cholesterol and blood pressure lowering agents. This move towards a three pronged attack comes with the understanding that cardiovascular disease (like most age-related disease) is a multi-factorial disease that needs to be managed through a number of biological mechanisms. The beauty of exercise is that in the correct dose, frequency and intensity it can have a positive influence on all these mechanisms, effectively reversing the onset of this disease which remains the number one killer of people in the western world today.

Added benefits

Many of the markers and much of the dysfunction that we have come to accept as the natural consequences of 'getting old' can be reversed. Even simple exercises such as walking can have a profound effect on one's quality of life as the years add on. Because walking can strengthen the pelvic floor muscles that help to keep urine in the bladder, simply walking for 30 minutes a day can reduce a woman's risk of urinary incontinence by up to 25%.

A study at the University of Vermont college of medicine also uncovered other benefits. Professor Judith Gerber stated, "Those who exercised three times a week had a more satisfying sex life than those who did less, and those who exercised five times a week reported even more satisfaction. Exercise improves levels of testosterone in women, enhancing energy levels, body image and sense of well-being – all of which enhances sexual function."

Of particular relevance to therapists is the advantage that regular exercise shows in your skin – improved circulation suffuses the microcirculation and helps deliver nutrients and transport toxins away from the deeper layers of the skin.

"In the long run people who exercise regularly have a better complexion overall. If they have acne, it's better controlled and if they have occasional breakouts they are definitely less severe and clear quicker and easier." says Dr David Goldberg clinical Professor at Mt Sinai Medical Centre in New York City. Exercise mediates the production of testosterone related hormones such as DHEA and DHT. Furthermore, by reducing stress, exercise tends to quiet the adrenal glands which produce stress hormones that may be the underlying cause of an acne flare up.

US Dermatologist Dr David Berman adds, "The better your circulation, which is something aerobic exercise can improve, the more effectively toxins are removed. The better and healthier your skin will not only be, but also look. Folks who exercise clearly have better colour to their skin – a rosy pink glow, as compared to a yellow-green or ashen grey cast."

The key of course, is how much should we exercise for optimal effects and what exercises should we be doing? Professor Derman warns that "whilst physical exercise can be a powerful intervention in anti-ageing medicine, it is not possible that an intervention can be both effective and devoid of side effects. Recent clinical evidence suggests that over-exercise in terms of intensity, duration and frequency can induce biological changes that are seen with premature or excessive ageing in both elite and recreational athletes." (4-7)

The definition of optimum anti-ageing exercise, how to maximize its effects and how to monitor yourself and recognise signs and symptoms of 'overdoing it' will be explained by Professor Derman during his anti-ageing exercise workshop to be conducted in London and Glasgow in October. (see back page for details)

This is of particular importance for therapists and health care professionals who seek to encourage their clients to adopt a comprehensive, holistic approach to anti-ageing. Alongside optimum nutrition, optimum exercise is clearly one of the pillars on which any anti-ageing programme should be based.

It is always important to remember that if you've been sedentary for a long time, are overweight, have a high risk of coronary heart disease or some other chronic health problem, see your doctor for a medical evaluation before beginning a physical activity programme.

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