

# Exercise your mind and body

Dr Ian Clarke highlights the importance of physical and mental exercise

I have noticed a recent trend since the advent of COVID-19: more people are on the roads exercising. These are not pedestrians getting from point A to B, these are people of all shapes and sizes who are deliberately exercising. Some of them are fit, some are unfit, some are old some are young. There are male and female, and what they have in common is they are now part of the exercise fraternity.

In the evolution of mankind we have moved from being very active physically to being sedentary and this has had a detrimental effect on our health. In bygone times we were hunter-gatherers, which meant that we were walking and running a lot. Now we get into our cars and sit in the office, which leads us to put on weight and develop diabetes and high blood pressure. Physical exercise not only builds our muscles, but improves the function of our heart so that blood is pumped around the body more efficiently. Professional athletes have a slow heart rate because their heart pumps efficiently.

Oxygen is essential for life: we can survive without food for weeks, without water for days, but we can only survive without oxygen for a few minutes. Oxygen is used by every cell in the body for the process of producing energy. The oxygen is breathed into the lungs, gets to the alveoli within the lungs where it gets taken up by the blood and pumped to all the vital organs by the heart. One organ that has a very high demand for oxygen is the brain (it uses 20% of the body's oxygen). Thus when people exercise they feel better because they increase the blood supply to the brain. Therefore they feel more alert, their mood improves and they feel less stressed. Surprisingly, if you have a long stressful day at work the best thing to do is not to sit down and watch television, but to go for a run or a brisk walk.

There are two types of exercise: there is aerobic which strengthens the cardiovascular system, and there is exercise which increases strength. Both are good, but cardiovascular has more benefits: just 30 minutes of brisk walking or jogging three times per week makes a marked difference to your health. Strengthening exercises improve the musculoskeletal system and are good for protecting bones and joints.

Another form of exercise that is useful is to exercise the brain. The brain is just like any other muscle, and if you use it more it will become more developed. It has been shown through MRI scanning that people with certain specialised skills have certain parts of their brain



Young people exercising. Source: Chepkemoi Lasoi

that become more developed. For example, in a professional violin player's brain the neurons that control the left hand are much more developed than those that control the right hand. This is because the left hand does all the precise finger work on the strings while the right hand only has to hold the bow.

The brain is designed to learn new things all the time, but some people put their brains into neutral and stop learning as they get older. More people are more at risk from Alzheimer's than those who remain mentally active. The idea that we learn at school and university and then coast through the rest of our lives without learning anything new is very wrong.

Mental exercise, like physical exercise happens when we challenge ourselves. When one commences physical exercise the muscles hurt so we want to stop and rest, but we set ourselves goals and don't give up. It is the same with mental exercise. We challenge ourselves to read a book instead of scrolling through social media mindlessly. We listen to educational podcasts, not just watching entertainment at all times.

As we grow older it is even more important that we exercise our bodies and our minds. This is the opposite of what most people believe since the generally accepted wisdom is that we take it easy as we get older. But we need to be even more disciplined, both in taking appropriate physical exercise and in keeping an active mind. As human beings we build a great trove of institutional knowledge throughout our lives so that as we get older we have more to draw on and give back.

The message is: exercise your body and the mind through every season of your life. As the saying goes, Use it or lose it.

## References

1. John Medina (2017) Brain Rules for Aging Well: 10 Principles for Staying Vital, Happy, and Sharp. Pear Press.

Dr Ian Clarke is a physician, missionary, philanthropist, entrepreneur, and politician in Uganda.