

## **The cheapest antidepressant**

At least 150 minutes per week – that is how long the WHO recommends we spend doing cardio exercises that involve sweating and panting if we are to make appreciable changes to our health. What is more, using this method together with a balanced diet will also provide the cheapest antidepressant free of any side effects.

### **Gábor's story**

Gábor can call himself lucky in some respects. As an estate agent, he does not have to sit in an office from eight until five every day and only works when he has clients. True, his income also depends on the number of house-hunters he manages to catch – and this is quite a significant stress factor. On the other hand, this is exactly the freedom that gives him an excuse to stay at home, even for several days.

And in recent months this is exactly what has happened increasingly frequently. Because he couldn't get up in the morning, Gábor did not open the curtains and lay in his unmade bed hardly eating or drinking until the afternoon. He only changed out of his pyjamas later so that his son coming home from school would not think he was ill. Later he did not even bother about that. Gábor was ill indeed: he was suffering from depression. The neighbours simply thought he was an idler. "He's got everything: a wife, a child, a job, a mortgage... what's he got to worry about?" they said. Of course, his wife saw that he was in deep trouble, especially when she found cut marks on Gábor's lower arm one evening.

The psychiatrist immediately prescribed an antidepressant, which did ameliorate the problem, but from that moment on everything changed. The unspoken question could be seen in Gábor's wife's eyes: "When will he have a relapse?" When she naively tried to persuade her husband to do some sport (Gábor used to cycle regularly and play competitive badminton), she was unaware how wise her advice was. All she meant to do was divert her husband's attention from his illness. Gábor, however, did not feel strong enough to do sport, and so the most they did was to go for a walk from time to time, but it was noticeable that on these days he went to sleep more easily and was more patient with their son as well.

Who knows? If Gábor had been taught as a child about the relationship between lifestyle and health; if he hadn't given up regular exercise as a young adult; if he hadn't allowed those extra fifteen kilos to creep up on him; if he had found an effective way of relieving stress; if his specialist had first tried to convince him to change his lifestyle, he might have avoided becoming so depressed, however much genes influence the emergence of that disease.

### **Temporary blues or illness?**

The symptoms of depression are feeling low, a lack of motivation and chronic fatigue. As everybody experiences these symptoms from time to time, it is important to distinguish between temporary swings in mood and real depression. While the former can be considered natural, the latter is far from that, as it can last far longer than a couple of weeks and has a major impact on lifestyle. At such times feeling down is accompanied by problems with sleeping and eating, a lack of self-esteem, a drastic loss of energy, difficulties of concentration, a sense of guilt and frequently suicidal thoughts. These symptoms lead to major depression, which can appear several times during someone's lifetime.

By contrast, dysthymia is milder but lasts longer. People who suffer from this are quite likely to experience mild depression throughout their life, so much so that it seems to be part of their character. As a result, depression can cause the quality of life and the ability to work to deteriorate to an extent comparable to serious physical diseases.

### **Not an individual problem**

In 2009 a conference on preventing depression and suicide was held in Budapest, organised by Hungary and the European Union with the backing of the WHO and a Swedish organisation. One of the main reasons for holding the event was that depression as an illness (and naturally suicide attempts as well) are an immense burden in the European Union both from a social and an economic aspect. Indeed, the incidence of these poses the main threat to productivity and sustainable development in Europe.

This illness at present affects 13 per cent of the population of Europe in some respect, more often women, but the trend is growing. What is more, according to a WHO forecast, by 2030 this will be the most significant health concern in the European Union.

Depression is a major handicap in the world of work and its costs are very high, two thirds of these arising from loss of production. In 2004 expenditure was 1 per cent of Europe's GDP and, according to observations by national governments, these costs have doubled over the last 10 years. Depression shows correlations with poverty, unemployment, and changed living conditions, thus the crisis of recent years has also had a major influence on the incidence of the disease.

So if we approach the problem strictly from a financial point of view, the situation certainly needs to be improved. Moreover, there is a cure that is available, cheap and free of side effects: healthy lifestyle.

### **Well-known yet neglected interconnections**

Most people are aware of the positive impacts of physical exercise, but few people act on this knowledge. Nonetheless, numerous studies show that there is a measurable improvement in mood even right after exercising. As it becomes apparent from Dr Peter Salmon's comprehensive study on the effect of exercise on anxiety and depression, a crucial factor from this aspect is to train in a way that is suited to people's disposition and does not significantly exceed their abilities.

The antidepressant effect of exercise has been known since 1969, when Dr Morgan's study revealed that fitter patients among people suffering from depression had milder symptoms. Later, a study of 55 000 people proved that regular exercise resulted in lower levels of anxiety irrespective of social status, gender and age. Other research shows that consistent sports activity has a protective effect against mood disorders even many years later. This natural method has proved effective even for people currently suffering from depression as it is able to significantly reduce symptoms, and this is due not only to being in company, to encouragement and motivation but also to hormones.

### **Sport produces antidepressants in the brain**

The positive experience of exercise improves self-esteem in a natural way, but the changes can also be explained biologically. However odd it may be, physical activity does indeed

mean stress for the body. However, if we manage to exercise at the right intensity and frequency, the brain adapts to this recurrent stress and produces more substances that actively relieve stress, such as noradrenaline and serotonin. These hormones have an antidepressant effect, in other words, consistent sports activity can be regarded as a type of natural medicine for mood disorders.

Opioids likewise reduce the feeling of pain and fatigue, and we feel the lack of them when we skip regular exercise.

### **Exercise – a strong common bond**

“Exercise protects not only at a physical level,” said Dr László Babai, a lifestyle physician, explaining the interconnections. “Anyone who does sport also enjoys major social advantages because in sports clubs, gyms and fitness centres they can make new friends and acquaintances. On top of this, they have social support in putting healthy lifestyle into practice and this is a strong common bond. At the same time, if we consider not only the psychological aspects but also the physical benefits of sport, in this sense there is a marked difference between the effect of light and moderate intensity exercises. If we manage to achieve the WHO recommendation of at least 150 minutes of cardio exercise per week, we will reduce our blood pressure, cholesterol and blood sugar levels, may prevent cancer of the colon, breast, prostate and lungs, and significantly reduce the consequences of stress, among other things.”

Moreover, it is a truly far-reaching correlation that the chronic illnesses that develop from leading a sedentary lifestyle significantly increase the risk of depression.

### **Physical work is not a protective factor**

If exercise is a protective factor, one would think that physical workers are better protected in this respect. Unfortunately, however, this is not true. A joint study by researchers at King’s College’s Institute of Psychiatry in London and the Institute of Public Health in Norway has shown that only activities done in free time have a protective function.

The researchers questioned 40 401 Norwegians about the physical activities they did in their spare time. In this sense they also asked the respondents whether they did light or moderate intensity exercise. Light activity was deemed to be exercise that did not involve sweating and panting (such as a long walk, yoga or back exercises) while more intense exercise was classified as activity causing sweating or an increased respiratory rate. Those answering the questionnaire also provided details of the type of work they did (physical or intellectual) and whether they had personally experienced signs of anxiety and depression.

From the results it was clear that the more exercise people did in their free time, the lower was the probability of their becoming depressed. It is interesting to note that there was no direct correlation between the incidence of depression and the intensity of exercise. People who did only light exercise enjoyed the same protection as those who trained more intensively. However, the obvious lesson of the research was that exercise done as part of physical work did not act as a protective factor against anxiety.

### **Overweight and depressed – a vicious circle**

Weight and the body mass index are an issue closely linked to physical activity. Latest research results show that there is such a strong connection between obesity and depression that these two disorders should not be treated as separate problems.

According to ongoing research at universities in London and Adelaide, it is very important to recognise the two-way connections and risks between obesity and frequent mental problems as this could be the key to effective treatment and prevention. Although this is fairly uncharted territory, research must also cover lifestyle, psychological and sociological factors in order to explore this complex interconnection.

Fat people, particularly those who do think that they are fat, often face prejudice and discrimination against their weight, and this frequently leads to low self-esteem, a poor self-image and a sense of guilt. Moreover, being overweight is linked to social and economic disadvantages and a low level of physical activity, which are also closely connected with the emergence of depression.

### **Obesity is constant stress**

There is another aspect of the connection between being overweight and depression, as obesity carries a multitude of health risks with it such as cardiovascular diseases, high blood pressure and diabetes. Those affected are aware of most of these problems and actually treat themselves as being ill. Unconsciously, many also have shorter life expectancy. Women are particularly affected by this problem as they are more exposed to the unrealistic expectations suggested by the media, which means there is almost constant pressure on them.

Due to this, obesity provides a basis for a kind of constant state of stress, which often results in major psychological dysfunctions, such as feelings of depression and related symptoms. Research shows that lack of exercise and eating to excess (mainly fast food rich in fats and sugar) are widespread habits among depressed and neurotic patients.

Moreover, as this type of food is usually not too expensive, this unhealthy diet is bolstered by economic and social factors. “We need to adopt a holistic approach towards these patients, concentrating mainly on healthy lifestyle. For this we have to advertise the options for a balanced diet and exercise and, above all, make them available at a social level, but the responsibility of the individual is huge. From a medical aspect, we must understand that the links between obesity and depression appear as a vicious circle and, therefore, treatment must be two-fold. Stress management and cognitive training aim at mentally retuning the state of depression, and helping lift the people affected out of their psychological low. Regular exercise and, in particular, sports demanding great endurance, not only help you lose weight but also have a positive effect on mood and self-esteem, thus reducing the symptoms of depression. In other words, the more we manage to make exercise and, of course, a balanced diet, part of our lives, the greater our chances of losing excess weight and freeing ourselves of depression,” said Dr László Babai.

### **The depressing hamburger**

As has been shown, besides exercise a mainstay of healthy lifestyle is diet and, more precisely, balanced, whole food nutrition. Perhaps it is shocking for people in the West but this is far from being fast food and convenience food rich in saturated and trans-fats. In fact food containing high quantities of these substances increases the risk of depression. At least this was the conclusion researchers came to at Navarra University in Spain and the University

of Las Palmas de Gran Canaria in the Canary Islands after studying the eating habits and lifestyle of 12 000 volunteers over 6 years.

At the start of the study, none of the people taking part were diagnosed as depressed, but by the end 657 were suffering from depression, most of whom consumed significant quantities of solid fats made from liquid oil by artificial hydrogenation, in other words, trans-fats. Neither should it be disregarded that their risk of cardiovascular diseases also increased significantly.

At the same time, people who preferred to eat polyunsaturated fatty acids found in oils derived from plants, seeds and fish were affected to a much lesser extent.

### **Eat fish!**

Fish and the omega-3 fatty acid it contains certainly appears to be relevant from the viewpoint of mood disorders.

An astonishing connection between suicidal tendencies and low levels of omega-3 has been found by Elizabeth Sublette, a psychiatrist at the University of Columbia, and the psychiatrist and lipid biologist Joseph Hibbeln, who is head of the out-patient's alcohol department.

According to the announcement they made in the American Journal of Psychiatry in 2006, they monitored 33 depressed patients for two years based on the ratio of omega-3 and omega-6 fatty acids in their blood on the day they were admitted.

The results showed that from the 7 suicide attempts over the 2-year period, 6 were made by people in the low omega-3 group.

The American researchers were not the first to come to this conclusion as, apart from others, in 2001 Joseph Hibbeln made a joint study with Finnish colleagues which showed that people who eat a lot of fish are 50 per cent less likely to commit suicide.

Naturally, this does not mean that depression can be equated with a lack of omega-3, but the fact is that people whose diet includes little of this fatty acid find it harder to cope with stress and losses. This state, however, is the precursor of depression.

Biologically the connection is obvious: the lack of omega-3 is accompanied by a reduction in the serotonin level. Serotonin, as has already been proven in connection with sport, is a natural antidepressant. So could eating more fish be the answer?

### **Dispense the natural cure-all!**

It would be naive to think that, once apprised of these correlations, everyone will don their tracksuit and jog to the market to get some fish. Nonetheless, it is worth trying to spread the message.

As one of the most striking challenges in public health is depression and its consequences, it is clear that not only individual but also national and international strategies need to be conceived if we are to find a solution. On the one hand, because of the recognised correlations, it is essential to strengthen the social network and solidarity, make healthcare accessible to everyone, create jobs rooted in economic growth and recognise the importance of mental wellbeing.

At the same time, non-economic measures such as teaching empathic attitudes in childhood, learning strategies to tackle difficulties, establishing a stable set of values and providing education based on this are extremely important from the aspect of prevention.

Besides this, however, the natural cure-all must be dispensed and attention drawn at every forum to the link between lifestyle and health, and depression. Great progress could be achieved by making regular exercise and balanced diet part of children's lives from a very early age. Nonetheless, awareness that this can only be done through the combined efforts of the family, community and society as a whole must also be raised. Clearly, no radical change can be expected while it is entirely accepted in society and in the family that the holy trinity of coke, crisps and hamburgers is such an integral part of our TV viewing experience. Also, prevention is not worth it as long as antidepressants remain bigger business than promoting health and maintaining a suitable lifestyle.

Nevertheless, in the knowledge of the correlations and long-term benefits, more and more people advocate that health consciousness must become a value that is pleasurable and natural for every European.