EXERCISE YOUR WAY TO BETTER POST-TRANSPLANT HEALTH
This guide has been drawn up by the Council of Europe European Committee on Organ Transplantation (CD-P-TO).

For more information, please visit https://go.edqm.eu/transplantation.

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Dear transplant patient,

Evidence shows that regular physical activity is highly positive for transplant patients – having beneficial effects for all aspects of your quality of life.

Yet surveys carried out all over Europe among transplant patients and patients on waiting-lists for solid organ transplantation have shown that many people are still not fully aware of the enormous benefits that regular physical activity can have for their health.

**Why is physical activity so important for transplant patients?**

Regular, light-to-moderate physical activity such as walking or cycling has significant health benefits for anyone, but is especially valuable for transplant patients as it will help you to cope with some of the frequent side-effects of post-transplant treatment, which include the development of heart and circulatory problems.

In addition, performing regular physical exercise will:

✓ Help motivate you to improve your lifestyle
✓ Help you in rebuilding your social life and relationships
✓ Allow you to develop more awareness of your body
✓ Enhance your physical health and mental sharpness
✓ Improve your emotional well-being
✓ Improve your sex life.

Physical exercise is medicine for the entire population, but especially for transplant patients.
How will physical activity help you to cope with the side effects of post-transplant treatment?

Two common long-term problems for transplant patients are weight gain and high cholesterol levels. This is due to both your immunosuppressive therapy and an increase in your appetite resulting from improved health after transplantation.

Eating too much and exercising too little, combined with the immunosuppressive treatment you will need to take for life to avoid your transplanted organ being rejected by your body, can lead to a range of different medical conditions such as metabolic syndrome (which is closely connected to an increase in body fat around the waist and high levels of triglyceride, cholesterol and glycaemia in blood values) or chronic cardiovascular illnesses.

Should my transplant doctors work together with a sports medicine doctor?

Yes, ask your transplant doctors to refer you to a sports medicine doctor, who will draw up your personal exercise programme – designed for your specific needs and health status.
TESTIMONIAL

“The simple act of walking or climbing the stairs used to hurt me until I started exercise on a regular basis. For me, the biggest challenge was just getting started. But then I did it, daily, weekly or whenever I could. My goal was to exercise, live well and feel better. All the pain I was used to feeling on my back, in the legs, gradually disappeared and this made a big difference in my life. Exercise is what allowed me to do the things I want to do!”

- Richard, haemodialysis patient -
Ask your sports medicine doctor to refer you to a gym with specially-trained staff.

Certainly, one of the best ways to take regular physical exercise under supervision is to go to a gym with specially trained staff. There, your training sessions will be tailored to your needs in line with the recommendations of the sports medicine doctor.

Testimonial

“Sports medicine is one of those medical specialities that are based on the patient’s physiology. Although the work of a sports physician is strictly connected to athletes, they are not the only patients we follow. Physical exercise is not only a therapy for improving the health status of transplanted patients, but also an excellent way to prevent the development of chronic diseases.”

- Mark, sports medicine doctor -
What can I do if I don’t like going to the gym?

No problem, you can do useful exercises almost everywhere. Start with simple exercises like climbing stairs or doing push-ups against the wall.

Then, widen your training programme by adding exercises like walking, jogging, skipping, cycling (stationary or outdoor) or cross-country skiing. Any kind of physical activity can be performed if it has been agreed beforehand by your doctor.
TESTIMONIAL

“I started walking with my two dogs, and since I started, I feel much better than before. I told myself: ‘Just do it for 10 minutes, it doesn’t have to be a 5 km run, just get out and move.’ Now I sleep better at night, feel much more energised and have a much better feeling about myself and other people, too. My dogs are the best incentive to get out of the door every day, and I really like to be among people!”

- Judith, kidney transplant recipient -

Why is physical activity so important from the medical point of view?

Regular physical activity has been proved to be the most effective way to prevent cardiovascular diseases, as well as to combat other major threats to health such as stroke, diabetes, hypertension, colon cancer, breast cancer and depression. Patient exercise after an organ transplant also tends to help the organ work better and longer.
## TYPICAL TRAINING SESSION
**BASED ON WORLD HEALTH ORGANIZATION RECOMMENDATIONS**
(suitable for a patient who has undergone solid organ transplantation**)

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>DURATION</th>
<th>EXERCISE (examples)</th>
<th>TOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AEROBIC WORKOUT</strong></td>
<td>3 times a week (preferably)</td>
<td>30–45 minutes</td>
<td>Stationary bike (intensity to be defined by the sports medicine doctor)</td>
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<tr>
<td></td>
<td>6 times a week (preferably)</td>
<td>45 minutes</td>
<td>Walking</td>
</tr>
<tr>
<td><strong>STRENGTH TRAINING</strong></td>
<td>Twice a week (preferably)</td>
<td>30 minutes</td>
<td>For each muscle area in the upper and lower limbs, 2 sets of 20 repetitions at 35% of your maximum weight (i.e. if the maximum weight you can lift is 10 kg, you should lift 3.5 kg 20 times and repeat this series twice)</td>
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** To be agreed with your sport medicine doctor and tailored to your health condition.
What are the expected health benefits after 12 months of an exercise programme?

- Improved self-perception (physical, general, mental health)
- Decrease in proportion of body fat
- Increased strength in the arms and legs
- Increase in bone density
- Increase in heart and lung performance
- Decrease in inflammatory processes that could lead to further cardiovascular disorders
- Improvement in organ function
- Decrease in cholesterol levels
CONCLUSIONS

Prescribed physical exercise is:
✓ safe for anyone who has undergone transplantation
✓ the best way of staying healthy!

This is why the Council of Europe and its Committee on Organ Transplantation support and recommend physical activity as a major way to improve the health status of transplant patients.

A donated organ is a precious gift of life. Regular light-to-moderate exercise plays a crucial role in restoring both the physical and mental health of transplant recipients.

_Do yourself a favour: take the first step by going to your doctor to ask for an exercise prescription!_
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