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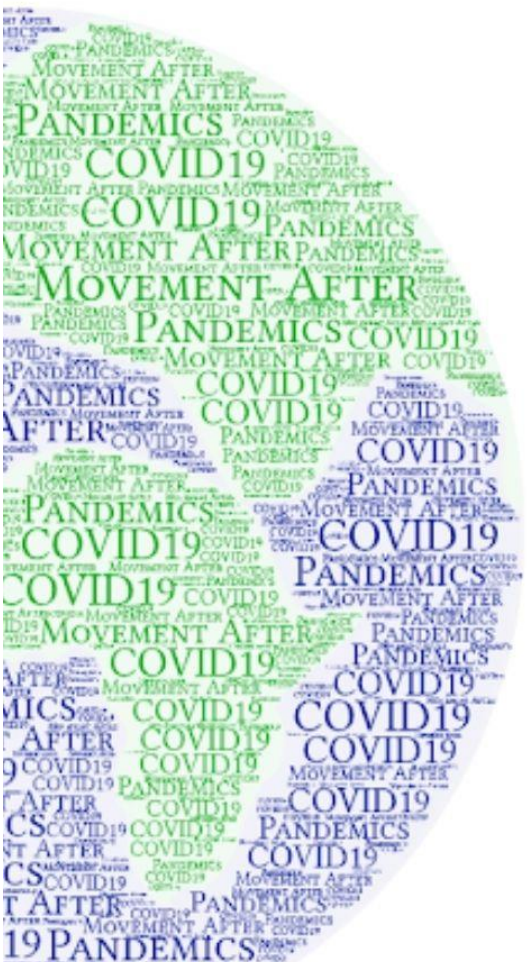
Recommendations for increasing physical activity after the COVID19 pandemic

COVIDMOVE

project number 2021-1-SK01-KA220-HED-000023008



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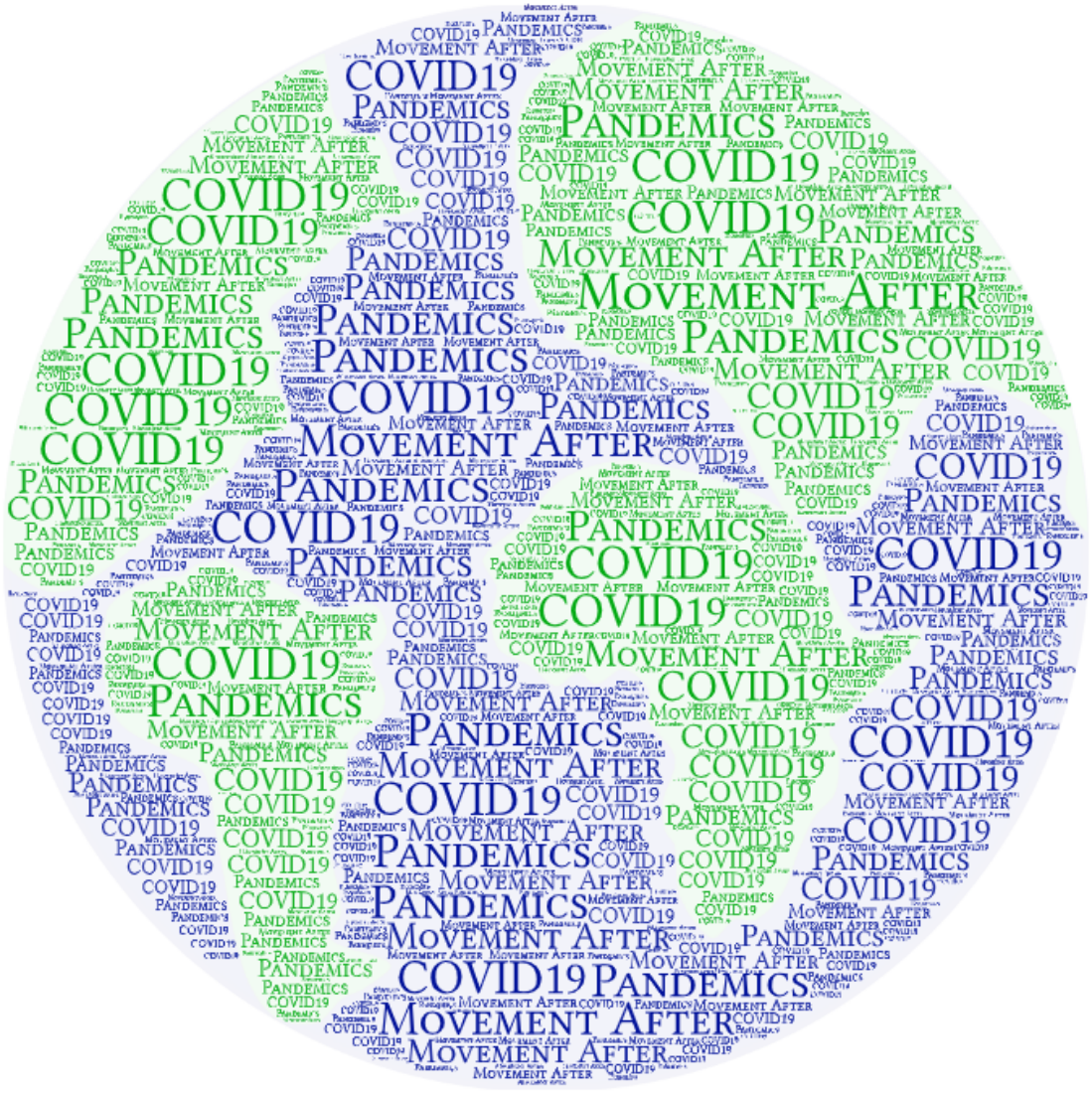

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Content

Dear readers

Welcome to our guide dedicated to physical activity, the fundamental building block of a healthy and fulfilling life. In today's era, where technology and a sedentary lifestyle dominate our daily activities, it is more important than ever to recognize the significance of regular exercise for our physical and mental health.

Physical activity is not just about maintaining fitness or achieving an ideal body shape. It is a crucial factor that contributes to overall health, increases disease resistance, improves mood, and supports mental well-being. Research continually confirms that regular physical activity reduces the risk of developing chronic diseases.

Physical activity brings us joy, energy, and vitality. It helps us overcome daily stressful situations, improves sleep quality, and promotes healthy self-esteem. It doesn't matter what form of exercise we choose – whether it's running, swimming, cycling, yoga, or simply walking in nature. Every step we take towards a more active lifestyle is a step towards better health. Our scripts are designed to provide you with valuable information, advice, and guidance on how to incorporate physical activity into your daily life. Regardless of your current fitness level or experience, we believe that everyone can find a way to move actively and gain the maximum benefit from exercise.

We invite you on a journey towards a healthier and happier life, where physical activity is our faithful companion. We hope these scripts will inspire and motivate you to discover and enjoy the joy of movement every day.

Dr. Dávid Líška, PhD.

Increase in Physical Activity Post-Pandemic: COVIDMOVE Guide

For millennia, the human struggle to obtain food has shaped our metabolism and bodies to efficiently store nutrients during periods of caloric surplus. However, today, most of the population does not achieve adequate levels of physical activity (1–4). This reality leads to an epidemic of overweight and obesity. This adaptive mechanism of excess body fat was crucial when food sources were uncertain and access to them was limited. Thus, the human body evolved with an emphasis on the ability to maximize the use of available calories and store fat reserves, which could be used in times of scarcity (5,6). This evolutionarily conditioned mechanism currently faces challenges associated with modern lifestyle, where there is an excess of calories and simultaneous insufficient physical activity (7). Today, a sedentary lifestyle characterizes most of the population, which, combined with a high-calorie diet, creates conditions for the accumulation of fat reserves. Insufficient physical activity is a factor contributing to the epidemic of overweight and obesity (8). This trend is alarming due to its widespread negative impacts on health. Overweight and obesity are associated with numerous health complications, including cardiovascular diseases (9), type 2 diabetes mellitus (10), and other conditions. This also increases the economic burden on healthcare systems due to the increased need for treatment of these conditions.

A potential solution to this issue is a comprehensive approach aimed at increasing physical activity and promoting a healthy lifestyle in the population. It is necessary to create conditions for people to prioritize an active lifestyle, whether through public health initiatives or educational programs aimed at raising awareness of the importance of physical activity. It is important that these measures are implemented considering the diversity of the population and individual needs of people to effectively address the challenges of the current epidemic of overweight and obesity.

The shift from physical activity to a passive lifestyle has serious consequences for our health. It is important to realize that our ancestors exerted enormous effort to obtain food and sustain their survival. Their metabolism evolved to use available nutrients most efficiently because caloric surplus was rare. Today, many people can afford the luxury of not having to perform hard physical work to obtain enough calories. However, this transition to a sedentary lifestyle and high-calorie diet brings many health risks.

Activity involving movement represents a fundamental aspect of human existence, as it directly contributes to increased energy expenditure and is closely linked to the dynamics and functionality of skeletal muscles. This phenomenon is not limited to traditional forms of movement, such as walking or running, but also includes less obvious forms like isometric

exercises. These activities, which do not involve visible movement of body parts but rather intensify muscle activity and increase their strength, are important for developing muscle strength and endurance. Engaging in physical activity, when performed systematically and within prescribed limits with appropriate effort, is invaluable not only for physical but also for mental health. It is not just about improving physical parameters such as strength, fitness, or cardiorespiratory performance, but also about positively impacting mental well-being, including reducing stress, improving mood, and overall feeling of satisfaction. Moreover, by improving muscle strength and flexibility, it can reduce the risk of injuries and enhance the ability to perform daily activities, thereby contributing to a higher quality of life.

An important aspect is the social dimension of physical activity. Group sports or joint exercise sessions can strengthen social bonds, foster a sense of belonging, and increase motivation for regular exercise. Engaging in various physical activities can also bring new hobbies and interests, broaden horizons, and contribute to personal growth and development. In the context of sustainable health and well-being, physical activity represents an integral part of a lifestyle that promotes longevity and a good quality of life. It is an investment in one's health that brings long-term benefits on a physical, psychological, and social level.

Therefore, it is important to pay attention to your eating habits and lifestyle and find a way to incorporate physical activity into your daily routine. That is why you are reading these recommendations, which can serve as a guide on how to increase physical activity in your life. Physical movement is characterized mainly by muscle contraction and increased energy expenditure above the resting level (11). Movement can be defined as physical activity, based on muscle contraction. Muscle contraction is thus the basic manifestation of any physical activity, alternating between concentric and eccentric muscle contraction. Physical activity can be characterized as diverse physical activity. It is a set of movements that lead to the achievement of specific goals and contribute to physical and mental development. Physical activity is known as a protective factor against cardiovascular, oncological, metabolic, and many other diseases (12). The rise of civilization diseases, such as obesity, is often associated with a significant lack of movement in children and youth. The impact of physical activity on the cardiovascular system is pleiotropic. Movement causes blood redistribution and increased blood flow to working muscles, which need more oxygen than inactive muscles. Aerobic exercise thus increases oxygen extraction from the blood.

Physical activity represents one of the essential manifestations of life and serves as a means to meet basic human needs. Each of us has a natural tendency towards movement, but the modern lifestyle tends to be hypoactivity. In hypoactivity, there is a dramatic decline in active muscle

work and the functionality of systems important for proper movement. The consequence of hypokinesis is a deteriorated overall quality of life (13).

An important role of physical activity and exercise is the preventive impact against the development of oncological diseases (14–19). In the effort to develop effective strategies in the fight against oncological diseases, attention increasingly focuses on the role of regular physical activity. Two main forms of exercise, aerobic activity, and strength training are gaining importance as key tools in the prevention and support of cancer treatment. Aerobic activity has proven to be crucial in supporting overall health and preventing chronic diseases, including cancer. Physical activity plays a significant role in prevention as well as during the treatment and rehabilitation of cancer patients. Regular physical activity can not only reduce the risk of developing certain types of cancer but also positively affect the quality of life, physical fitness, and possibly even the survival of cancer patients (18). The mechanisms through which exercise acts preventively include reducing body fat levels, which is an important factor because excess fat can produce hormones and inflammatory mediators that contribute to cancer risk. Another important function of exercise is improving immune function (20). Exercise can also help improve mood, increase energy, and promote better sleep. Generally, a combination of aerobic exercise (such as walking, running, and swimming) and strength training is considered most effective. It is important to find activities that are enjoyable and sustainable in the long term, increasing the likelihood of regular physical activity.

In a time when a sedentary lifestyle and increased stress are becoming more common, it is essential to emphasize the importance of regular physical activity as an integral part of daily life. The benefits brought by aerobic activity and strength training extend beyond cancer prevention, impacting overall health and quality of life. Therefore, promoting movement and creating conditions for an active lifestyle should be fundamental pillars of public health and educational programs.

Impacts of the COVID-19 Pandemic

The COVID-19 pandemic has had extensive impacts on many areas of life, from healthcare to the economy, social relationships, and psychological health (21). The pandemic caused widespread loss of life and a large number of people suffering from the aftermath of the disease. Some patients develop so-called long COVID, which can include long-lasting symptoms such as fatigue, memory issues, and breathing problems (22). Hospitals had to cope with overload due to the influx of COVID-19 patients, often leading to delays in other medical treatments and worsening access to non-urgent healthcare services. The pandemic caused a global recession with many job losses, particularly in sectors such as tourism, hospitality, and entertainment. National debts increased as governments provided extensive support to the economy in the form of stimulus packages and benefits for businesses and individuals. Pandemic-related restrictions disrupted global supply chains, causing shortages and price increases. Lockdowns and mobility restrictions contributed to social isolation, increased mental health issues, and feelings of loneliness. The closure of schools led to a shift to online learning. The pandemic accelerated the transition to remote work and digital tools, changing work models and prompting infrastructure changes. Organizations began investing more in digital solutions to remain competitive and efficient in the new environment. Different strategies and their success in combating the pandemic influenced perceptions of governmental effectiveness and credibility. COVID-19 showed that global challenges require global solutions, but national and geopolitical disparities also emerged. The pandemic revealed gaps in the preparedness of many countries to handle public health crises.

The COVID-19 pandemic significantly affected physical activity worldwide. Measures such as lockdowns and quarantines severely limited opportunities for movement and access to sports facilities or fitness centers, causing people to spend more time at home and have fewer opportunities for regular exercise. These restrictions led to a decrease in daily physical activity, and the quality of movement changed as people focused on activities that could be done in a limited space. For example, when it was not possible to go to the gym or sports fields, people sought alternatives like exercising at home or taking walks in the nearby area. Daily routines also changed as working from home and online education altered habits, leading people to spend more time at their computers, and contributing to a sedentary lifestyle. The lack of rest breaks and physical activities contributed to deteriorating physical fitness and increased fatigue, disrupting overall well-being. Many people stopped commuting to work or school daily, leading to the cessation of regular walking or cycling. Psychological impacts of the pandemic, such as stress and anxiety, also reduced motivation to engage in physical activities, leading to increased

sedentary behavior and an overall decline in lifestyle quality. Despite this, the popularity of online training programs and virtual fitness communities increased as people adapted to the new reality of limited outdoor or indoor sports opportunities. These alternatives allowed many to maintain a certain level of physical activity and became a source of social support. However, the lack of physical activity can contribute to the rise of chronic diseases such as obesity, cardiovascular problems, and diabetes mellitus, often resulting from a sedentary lifestyle. It can also lead to increased back and joint pain, consequences of prolonged sitting, and lack of movement. After restrictions were lifted, some people returned to their previous habits, but many retained the new, less active ways of life. This means that the overall decline in physical activity during the pandemic may have long-term consequences on population health. Consequently, there is an increased prevalence of sedentary behavior, which could continue to rise in the future if effective measures are not taken to curb it. In some cases, isolation from social networks previously formed in sports clubs further complicated the return to an active lifestyle. Overall, the pandemic significantly impacted physical activity in various ways, and its effects may be long-lasting. Targeted measures are needed to support physical health and re-motivate people to engage in regular exercise. This includes creating safe spaces for physical activity, promoting movement in daily routines, and providing access to sports facilities and fitness centers under acceptable conditions. The public should be encouraged to engage in physical activity through education, raising awareness of the health benefits of regular exercise, and supporting a healthy lifestyle, which is also the goal of these recommendations.

Aerobic Physical Activities

Aerobic physical activities increase breathing frequency and heart rate. These activities aim to improve the efficiency of the cardiovascular system, lungs, and metabolism. Aerobic exercises are key to maintaining and enhancing overall health, and fitness, and helping with weight control (23–25). Regular practice can positively impact mental health and reduce stress (26). One of the simplest and most accessible forms of aerobic exercise, suitable for all ages and fitness levels, is walking. Another important variant of physical activity is running, which provides excellent exercise for improving heart fitness, endurance, and burning excess calories. It can be adjusted to individual needs and preferences by varying speed and terrain. Swimming is a popular option that minimizes joint stress while effectively strengthening the cardiovascular system. In summer, cycling is a frequently utilized variant that effectively strengthens the cardiovascular system. Dance exercises represent another effective way to improve aerobic fitness. Nordic walking, which involves walking with special poles, engages more muscle groups and increases energy expenditure compared to regular walking. Cross-country skiing is a popular winter endurance sport that combines aerobic and strength endurance. This sport is performed on specially prepared skis on snow and includes various techniques and disciplines, such as classic style and freestyle (skate skiing).

Cardiovascular System

Physical activity is a key factor in preventing and managing cardiovascular diseases (27–29). Cardiovascular diseases include various heart and vascular conditions, such as ischemic heart disease, high blood pressure (hypertension), strokes (CVA), heart failure, and peripheral arterial diseases. Regular physical activity can significantly reduce the risk of developing these diseases and also serve as part of their treatment. Cardiovascular diseases (CVD) are the leading cause of death worldwide and are influenced by numerous risk factors, which can be either modifiable or non-modifiable. Understanding and properly managing these factors can significantly reduce the risk of developing CVD. Regular aerobic exercise, such as brisk walking, running, swimming, or cycling, can help lower high blood pressure, thereby reducing the risk of CVA and heart failure. Physical activity improves heart efficiency, leading to a lower resting heart rate and increased ability of the heart to pump blood more effectively (29). Physical activity can help increase levels of HDL cholesterol in the blood while lowering levels of LDL cholesterol and triglycerides (30). Regular physical activity, along with a healthy diet, can help regulate body weight. The World Health Organization (WHO) and the American Heart Association (AHA) recommend at least 150-300 minutes of moderate-intensity aerobic

physical activity 75-150 minutes of high-intensity aerobic physical activity per week or an equivalent combination of both for adults. For additional health benefits, they recommend including muscle-strengthening exercises at least two days a week. For people with existing CVD or at high risk of developing it, it is important to consult with a doctor, cardiologist, or physiotherapist before starting or changing physical activity. The doctor can recommend the appropriate type, intensity, and duration of exercise based on individual health status and risk factors.

Quality of Life and Physical Activity

Quality of life is a complex concept that includes physical health, mental well-being, level of independence, social relationships, personal beliefs, and their relationship to the environment (29,30). Physical activity is one of the key factors that have a direct impact on quality of life. Regular physical activity contributes to better health, higher mental well-being, and improved social interactions, all of which are important aspects of quality of life. Physical activity has a positive impact on physical health by helping to prevent multiple diseases such as heart disease, diabetes, obesity, hypertension, osteoporosis, and certain types of cancer. It also improves physical fitness, endurance, muscle strength, and flexibility, directly contributing to a better ability to perform daily activities and maintain independence, especially in older adults. The concept of quality of life (QOL) is broad, complex, and multi-meaning, and it is open to subjective interpretations that usually include both positive and negative aspects of life. The World Health Organization (WHO) defines health-related quality of life (HRQoL) as "an individual's perception of their position in life in the context of the culture and value systems in which they live, and about their goals, expectations, standards, and concerns." The assessment of HRQoL is based on individual evolutionary development in a cultural context. The evaluation of HRQoL also considers the ability to fully engage in various activities and physical, social, and psychosocial functions (22,33). The COVID-19 pandemic has affected people's lives in various aspects (21). Physical activity improves physical performance, mental state, overall health, and well-being. Physical activity overall performs many protective and preventive functions, such as improving memory, cognition, sleep, and mood (34).

Exercise and Neurocognitive Protection

The neurocognitive impact of exercise is a subject of intense research, revealing many positive effects of regular physical activity on the brain and cognitive functions (35). These positive effects apply to people of all ages, from children to older adults, and cover a wide range of cognitive domains, such as memory, attention, executive functions, and even emotional

regulation (36). Exercise, especially aerobic exercise, is associated with improved memory functions. This is partly due to the increased production of BDNF, which supports the growth and differentiation of neurons and synaptic plasticity (37). Improvements in executive functions, including planning, organization, flexibility, inhibitory control, and working memory, are also positively influenced by exercise. Regular physical activity can enhance these cognitive abilities, enabling better control over complex tasks and decision-making processes (38). Exercise also improves the ability to maintain attention and concentration. Increased blood flow to the brain during exercise can help better oxygenate and nourish brain cells. Exercise can act as a natural antidepressant by releasing endorphins, known as happiness hormones, and other neurochemical substances such as serotonin and dopamine, which play a key role in regulating mood and well-being (39). Regular physical activity can stimulate neurogenesis in important brain areas like the hippocampus, which is critically important for learning and memory (40). This process can help protect against age-related cognitive decline and reduce the risk of developing neurodegenerative diseases, such as Alzheimer's and Parkinson's diseases (41–43). Some research suggests that exercise programs consisting of moderate-intensity aerobic and strength training for at least 45 minutes on as many days of the week as possible are beneficial for cognitive functions in healthy older adults (44,45). Another benefit of exercise is the adaptation of the body to physical load, resulting in greater resistance to stress. This process is not only about physical fitness but also represents a comprehensive impact on an individual's overall health. If the human body is regularly exposed to physical activity, it gradually develops the ability to better handle both physical and mental challenges, leading to improved stress response (46,47). Endorphins released during exercise promote positive thinking and thus impact the patient's psychological well-being. These hormones not only help reduce the feeling of pain but also contribute to a sense of euphoria and satisfaction (48). This biological response is a fundamental mechanism through which exercise can help combat depression, anxiety, and other mental disorders. Additionally, regular physical activity improves sleep quality, another important factor for psychological and emotional well-being (49). Better sleep means better recovery, less daytime fatigue, and improved concentration and memory.

Everyone can find a suitable form of physical activity that suits them, whether it's walking, yoga, swimming, cycling, or other forms of exercise. Integrating physical activity into daily routines can lead to significant improvements in both physical and mental health, enhancing the ability to face the challenges of modern life (50).

Regular physical activity has great significance for an individual's emotional state. Patients can

more easily distract themselves, gain more confidence, and relieve stress from their daily problems. The reason is the increased production of specific neurotransmitters and modulators that reduce pain, improve mood, and bring a sense of joy (51–53).

Diabetes Mellitus and Physical Activity

Regular physical activity acts as a preventive measure against the onset of type 2 diabetes mellitus. It also increases cardiovascular performance, and insulin sensitivity, and helps reduce body weight (54). Obesity is one of the main risk factors for the development and progression of type 2 diabetes mellitus. Obesity is a health condition characterized by excessive accumulation of body fat, which can negatively affect health. It is a complex problem with many causes, including genetic factors, lifestyle, eating habits, and lack of physical activity. Physical activity plays a key role in the prevention and management of obesity as it helps regulate body weight by increasing energy expenditure and improving the body's metabolic functions. Regular physical activity increases the number of calories the body burns, which is the fundamental mechanism for weight reduction or maintaining a healthy weight. Physical activity can improve insulin sensitivity and optimize metabolic functions, which is important for processing glucose and fats in the body (55–57). This improvement can help in preventing and managing metabolic syndrome and type 2 diabetes, which are often associated with obesity. Exercise, especially strength training, helps build muscle mass. Since muscles burn more calories than fat tissue, increased muscle mass can raise the basal metabolic rate, contributing to weight regulation.

Increasing physical activity has the most significant impact on reducing the risk of developing type 2 diabetes mellitus in individuals at higher risk of the disease, including obese individuals, people with a family history of diabetes mellitus, and those who have trouble regulating blood glucose levels.

Aerobic training combined with strength training, which focuses on building muscle mass and strength, significantly impacts improving metabolic health and regulating various bodily functions. Both types of exercise positively affect the body's insulin sensitivity, which is crucial for effective blood glucose regulation. Strength training, such as weightlifting, resistance bands, or bodyweight exercises, aims to increase muscle mass and strength. Muscle mass is more metabolically active than fat tissue, meaning that larger muscles burn more calories even at rest. Therefore, increasing muscle mass can improve metabolic efficiency and insulin sensitivity, contributing to better blood sugar control (58).

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Oncological Diseases and Physical Activity

Regular exercise has many health benefits, including reducing the risk of certain types of cancer, such as breast cancer and colon cancer. Studies show that an active lifestyle can significantly contribute to the prevention of these types of cancers by improving the immune system, regulating hormone levels, and reducing inflammatory responses in the body. Additionally, regular physical activity supports maintaining a healthy body weight, which is an important factor in preventing many chronic diseases, including cancer. It is not necessary to engage in extreme or very strenuous exercises; even regular moderate exercises, such as walking or swimming, can have a positive impact on health and reduce the risk of cancer (59–62).

Overweight, obesity, and physical inactivity contribute to the risk of many types of cancers (59). Although overweight and obesity may seem separate from physical activity, both concepts relate to energy balance, which contributes to the development of obesity (59). Maintaining an optimal level of energy balance is associated with the primary prevention of cancer (64,65). High energy intake can increase the risk of colorectal, prostate, and breast cancers. This risk may be associated with a high-calorie diet that is not utilized and eventually contributes to excessive weight or obesity, factors known for their health impacts (65).

Optimal physical activity levels are a significant factor in cancer prevention. Regular exercise not only improves cardiovascular health in cancer patients but also helps maintain an optimal body weight. Physical activity helps restore muscle strength, which can be weakened in cancer patients and significantly enhances the quality of life (66–69). Physical activity is also an important therapeutic strategy for reducing fatigue, which is often a symptom of cancer. Exercise provides significant benefits for patients' overall health, improves physical fitness, and prepares them for surgical procedures, minimizing the risk of possible complications. The benefits of exercise are evident not only in the preoperative and postoperative periods but also in the long-term reduction of injury risk due to falls, which can be more common in cancer patients due to decreased physical fitness. Regular physical activity thus represents an invaluable part of comprehensive care for cancer patients, improving their physical resilience and contributing to better coping with the demands of daily life.

Rheumatic Diseases and Physical Activity

Rheumatic diseases represent a group of disorders that primarily affect the joints, muscles, bones, and soft tissues. Some may also have a systemic character and affect other organs. Rheumatic diseases include conditions such as rheumatoid arthritis, Sjögren's syndrome, lupus erythematosus, ankylosing spondylitis, osteoarthritis, fibromyalgia, psoriatic arthritis, osteoporosis, vasculitis, and myositis. Lack of physical activity is associated with a higher risk of developing these chronic diseases.

Characteristic features include pain, inflammation, and reduced mobility, which can significantly impact patients' quality of life (70,71). Physical activity is a key strategy for improving symptoms in people with rheumatic and musculoskeletal diseases. Regular exercise can help reduce pain, improve joint flexibility and mobility, and strengthen muscles, thus alleviating symptoms and improving quality of life. Besides physical benefits, physical activity positively impacts mental health by promoting the production of endorphins and reducing stress, anxiety, and depression, which often accompany these chronic diseases. By choosing the right type and intensity of exercise, people with rheumatic diseases can effectively support the health of their joints and prevent further deterioration of their condition.

The importance of physical activity for health has been discussed since ancient civilizations, as Hippocrates stated around 400 B.C.: "That which is used develops, and that which is not used wastes away. If there is a lack of food or exercise, the body will fall sick" (72). This approach to physical activity emphasized the need for a balance between exercise and nutrition to maintain health. Experts today emphasize the importance of regular exercise as a prevention and part of the treatment of various diseases. Moderate physical activity, tailored to individual needs and health status, can improve physical and mental health and reduce the risk of complications associated with a sedentary lifestyle.

COVIDMOVE

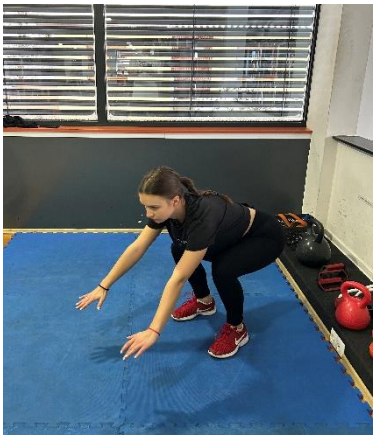
In our study, we focused on testing physical activity after the pandemic. The COVID-19 pandemic and associated restrictions were linked to limited physical activity (PA) for most of the world's population. In our cross-sectional prospective study (73), we assessed the level of physical activity among university students in Poland, the Czech Republic, and Slovakia after the COVID-19 pandemic. We used the standardized short form of the International Physical Activity Questionnaire (IPAQ-SF). The study included 2635 students. Data collection took place from September 2022 to December 2022. PA results were evaluated according to metabolic equivalent units (MET). The highest physical activity was recorded in Slovakia with a median of MET-minutes/week 4459.9; Czech Republic 3838.8; Poland 3567.1. Post hoc analysis results revealed significant differences in MET-minutes/week values between the Czech Republic and Poland ($p < 0.035$), as well as between the Czech Republic and Slovakia ($p < 0.037$). Analysis of energy expenditure during walking showed that students from the Czech Republic and Slovakia had a higher median MET-minutes/week (Czech Republic 2284.1; Slovakia 2467.1) compared to their Polish peers (1536.1) ($p < 0.001$). The Polish group had a significantly higher body mass index (BMI) ($p < 0.001$) than the Czech and Slovak groups (BMI Czech: 22.3; Slovakia 22.8; Poland 23.8). Significant differences in PA levels were identified among university students in the Czech Republic, Poland, and Slovakia. Compared to pre-COVID studies, it seems that the overall level of PA in the observed cohorts has not returned to pre-COVID levels, and students remain less active. Therefore, the main goal is to increase physical activity in the population.

Recommended Exercises

The following exercises are recommended for the general population to increase physical activity. These exercises can be performed multiple times a week. However, for optimal dosage and adaptation to individual needs, it is advisable to consult a physiotherapist who can provide professional guidance and adjust the exercise plan according to the individual's health status and physical condition.

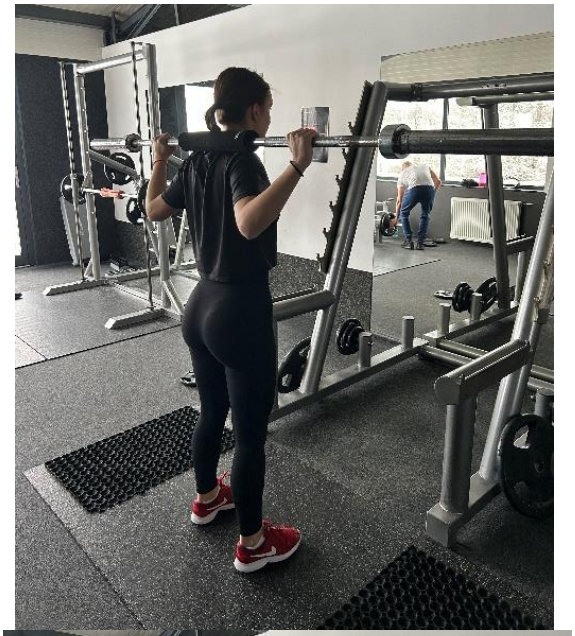
BURPEES

- Start in an upright position with your feet shoulder-width apart and your arms hanging loosely by your sides.
- Then squat, place your hands in front of you on the ground, and shift your weight onto your hands.
- Quickly swing your legs back so that you are in a push-up position. Make sure not to arch your back or drop your hips too low. You need to be maximally firm.
- Then return both feet to your hands, get back into the squat position, and jump as high as possible with your legs straight.




SQUATS

- Stand with your feet shoulder-width apart or wider. Your toes should be pointing slightly outward.
- You can also use a barbell, placing it on your traps and holding it with your hands.
- Before squatting, take a deep breath, active your core, and squat down low without leaning forward and keeping your spine straight.
- Exhale as you move upward.

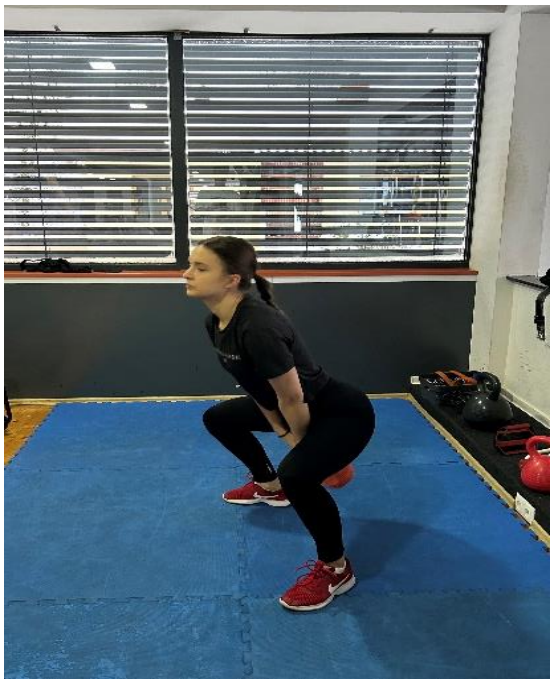


LEG PRESS

- Sit down and lean back comfortably against the backrest. Press your feet against the moving platform (about 50 cm apart). Their entire surface must remain in contact with the platform throughout the exercise.
- By straightening your legs, lift the moving platform and unlock the device with the safety lever.
- Bend your legs smoothly. In the lowest position, the angle at the knee joint should be about 90 degrees. After approximately reaching this bend, push the platform back to the starting position.

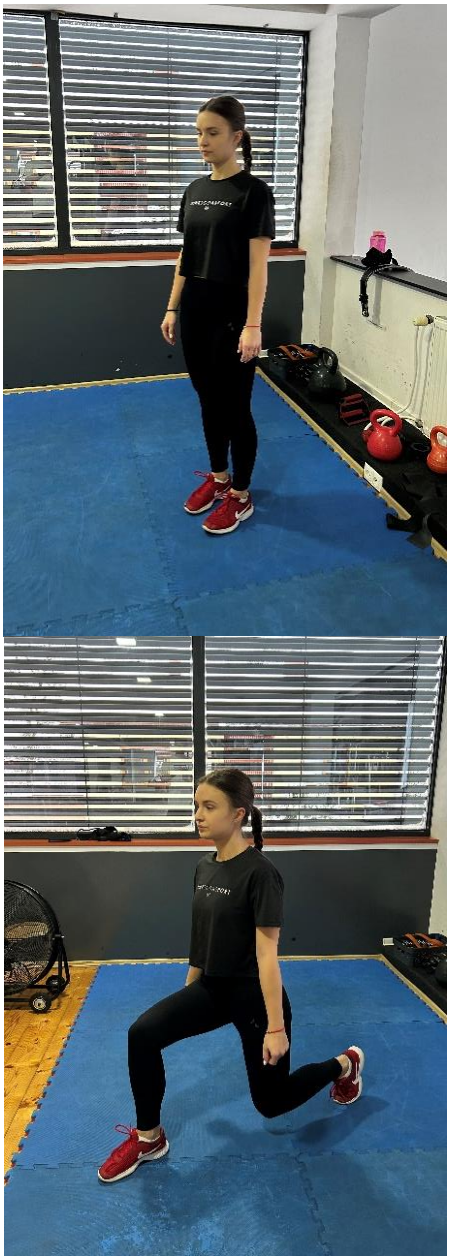
KETTLEBELL SWINGS

- Hold a kettlebell with both hands between your legs in a slight forward bend, making sure to keep your back straight.
- Swing it in a short movement between your legs towards yourself.
- Then, by straightening your legs, engaging your hips, and simultaneously moving your extended arms up, swing the kettlebell forward.
- Let the kettlebell fall back between your legs in a controlled manner and immediately proceed to the next swing.
- Move on to the next upward swing.



FORWARD LUNGES

- Stand with a slight spread from which you step forward so that your front leg forms a 90-degree angle.
- Your body weight should be on the front leg, and your upper body must be upright and perpendicular to the ground throughout the exercise. The knee of your back leg should stop just above the ground.
- If performing the exercise in place, return to the starting position by pushing through the heel of your front foot. If walking, complete the lunge by bringing your back foot forward as you stand up and continue with the other leg.

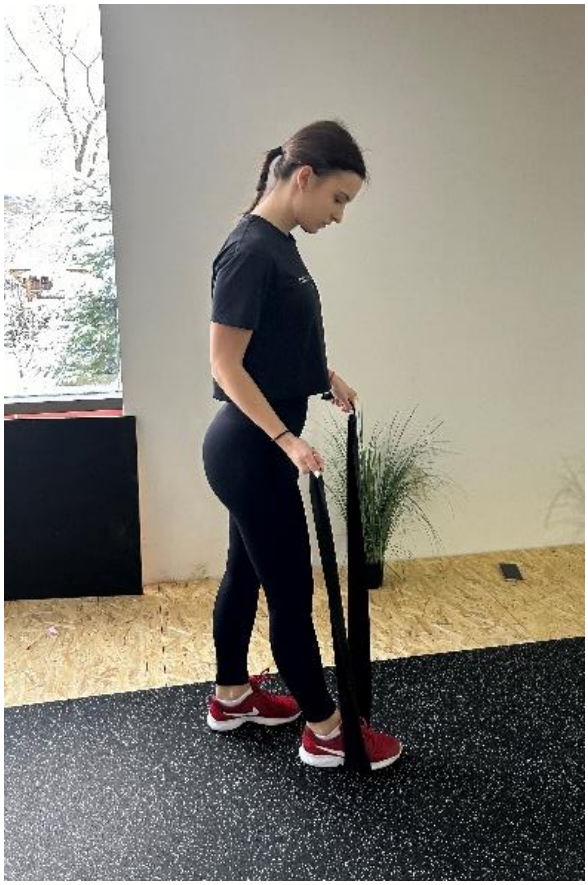


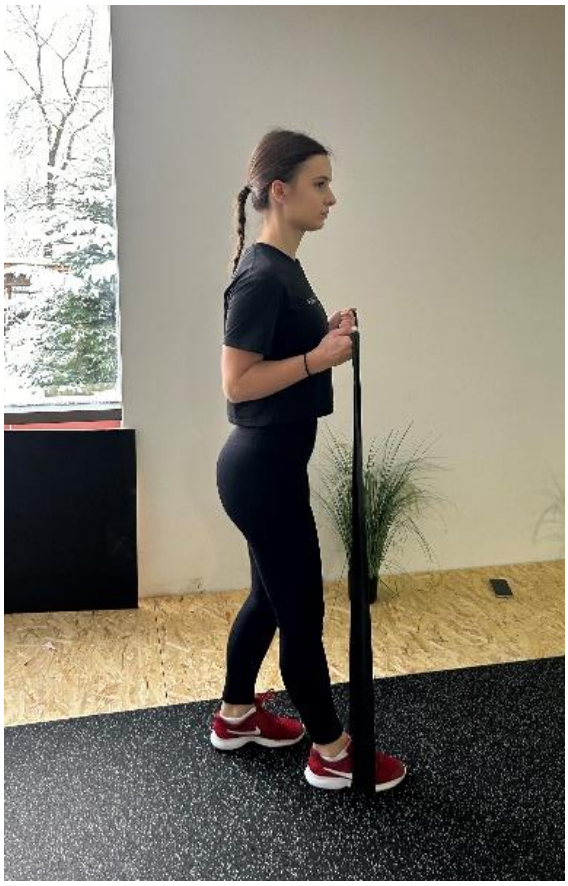
ROMANIAN DEADLIFT

- Stand with your torso upright and feet hip-width apart. Hold weights (barbell, dumbbells, kettlebell) loosely along your body.
- Slowly move your hips back, lowering your torso into a forward bend and moving your buttocks backward, keeping your back straight. Your arms will move down along your torso.
- The barbell should move as close to your body as possible. In the lower position, the barbell does not need to touch the ground; it is sufficient to end the movement about 10-20 cm above the ground.
- Exhale and return to an upright position with a straight back.

STANDING BICEP CURL WITH RESISTANCE BAND

- Stand with one foot in the center of the resistance band, feet shoulder-width apart. Hold both ends of the band with your hands, straighten up, and lower your arms. Your palms should face forward.
- Keep your back in its natural curve, your head in line with your spine, and your shoulders pulled down away from your ears.
- Exhale, contracting your biceps, and simultaneously pull both palms towards your shoulders.
- Inhale and return your hands to the starting position, repeating the movement. Keep your elbows close to your body.





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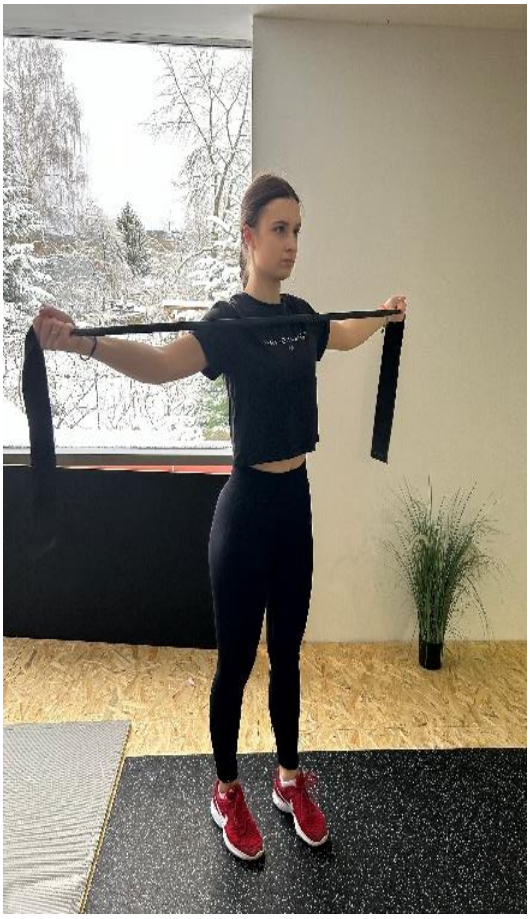
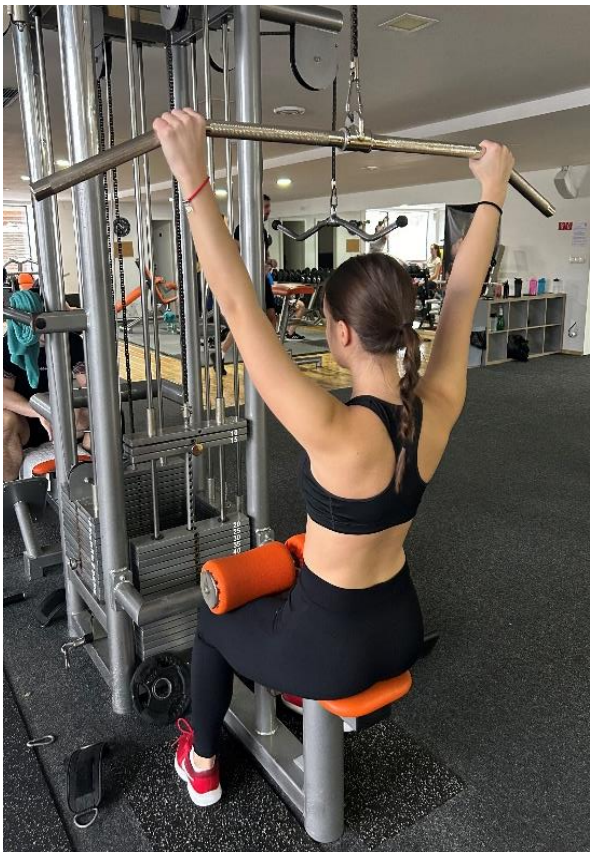
STANDING LATERAL RAISES WITH RESISTANCE BAND

- Hold a long band with an underhand grip at opposite ends and extend your arms in front of you. Stand with your feet hip-width apart, slightly bending your knees.
- Keep your back in its natural curve, your head in line with your spine, and your shoulders pulled down away from your ears.
- Exhale, engage your back muscles and extend your arms to the sides.
- Inhale and return to the starting position, repeating the movement.



CABLE PULL-DOWNS

- Firmly grasp the cable bar with a wide overhand grip. Start with your arms extended, pulling the cable bar down in front of your face.
- Try to pull the bar so that it touches your neck while leaning back slightly.
- In the lowest position, squeeze your back muscles maximally and slowly return to the starting position, aiming for the best possible stretch of the back muscles.

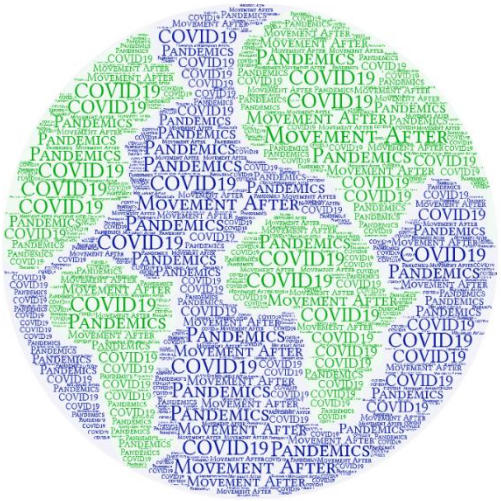


SEATED TRICEP EXTENSIONS WITH RESISTANCE BAND

- Sit on a bench or chair, anchoring one end of a long resistance band under your buttocks. Hold the other end with both hands and pull it behind your back.
- Raise your arms and bend your elbows to a 90-degree angle. Your palms should face each other and be behind your head.
- Keep your back in its natural curve, your head in line with your spine, and your shoulders pulled down away from your ears.
- Exhale and straighten your elbows, extending your arms overhead.
- Inhale and return to the starting position, repeating the movement. Focus on maintaining the same elbow position throughout the exercise.

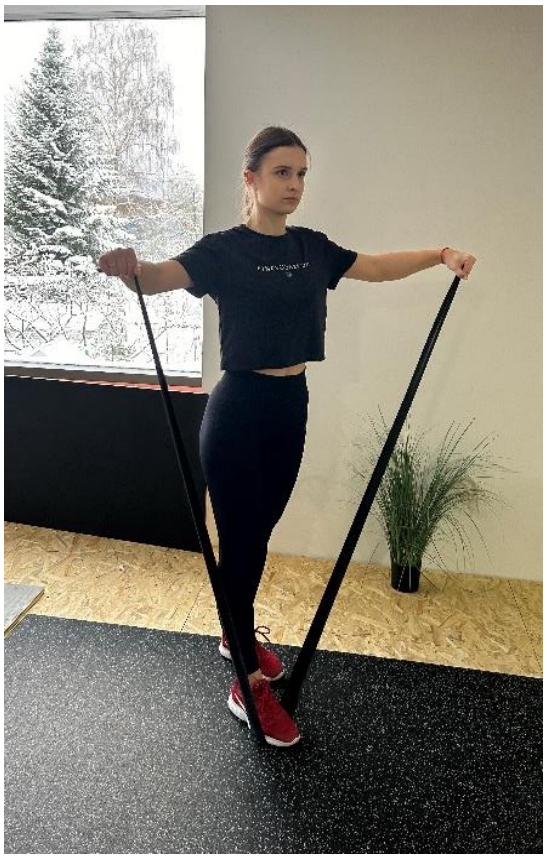
BENCH DIPS WITH BENT KNEES

- Sit on the side of a bench and place your hands on the edge of the bench next to your hips. Move your legs forward slightly and slide your hips off the bench so that your weight is supported by your hands and your knees are bent at 90-degree angles.
- Keep your torso upright and pull your elbows towards your body. Inhale as you lower your body by bending your elbows.
- Exhale as you push your body back up by straightening your elbows.



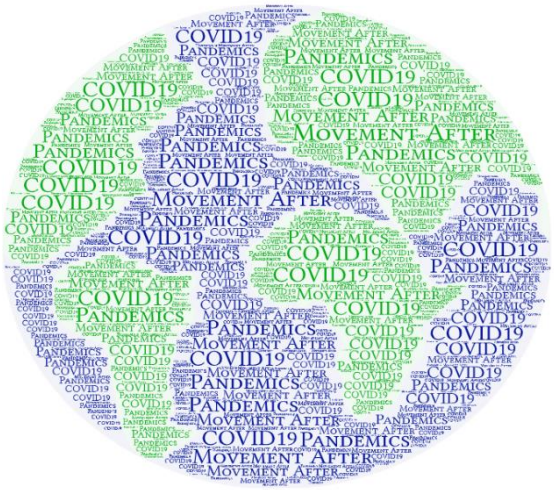
STANDING SHOULDER PRESS WITH DUMBBELLS

- Take dumbbells in your hands and sit upright on a bench, preferably with back support. Lift the dumbbells one by one to shoulder height, with your palms facing forward.
- Exhale and simultaneously press the dumbbells up and together until they almost touch above your head. At the top of the movement, shrug your shoulders to lift the dumbbells even higher.
- Inhale and reverse the movement, lowering the dumbbells to the starting position.



OVERHEAD DUMBBELL PRESSES

- Take the dumbbells in your hands and sit upright on a bench, ideally with back support. Lift the dumbbells one by one to either side and hold them at shoulder height, with your palms facing forward.
- Exhale and simultaneously press the dumbbells up and together until they almost touch above your head. At the top of the movement, shrug your shoulders to lift the dumbbells even higher. Inhale and lower the dumbbells back to the starting position with the opposite motion.



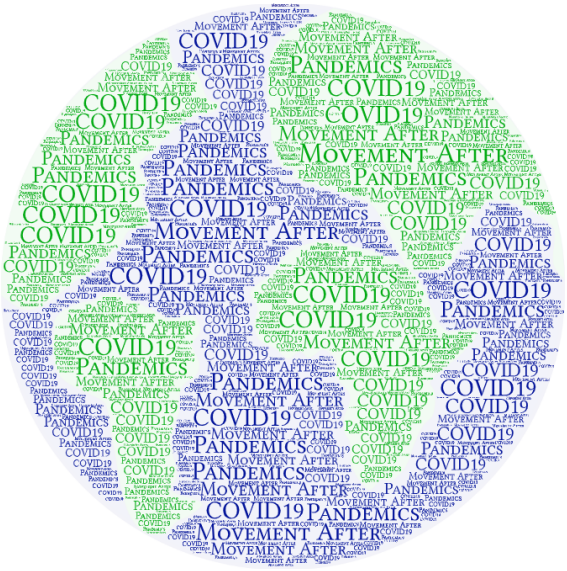
PUSH-UPS

- Get into a face-down position, supporting yourself on your extended arms and the balls of your feet, with your legs extended and feet close together. Your hands should be slightly wider than shoulder-width apart. An easier variation is to rest your knees on the ground.
- Begin to lower your body slowly until your chest slightly touches the ground. Hold this position for a second, then push yourself back up to the extended arms position in a controlled manner.
- Throughout the exercise, keep your back and legs straight, and keep your entire body firm to avoid sagging.




PLANK

- Get into a push-up position. Place your forearms on the ground with your elbows under your shoulders, arms parallel to your body, and shoulder-width apart.
- Maintain a neutral lower spine position and keep your glutes active. Keep your neck in line with your spine, looking down at the floor.
- Initially, you can hold this position for 30 seconds, gradually increasing the duration with each repetition.



MOUNTAIN CLIMBERS

- Start in the same position as the plank but with your arms extended.
- Slightly tilt your pelvis and active your core.
- Begin to alternately bring your knees towards the opposite elbow, between the elbows, and then to the other elbow.
- Ensure you do not sag in the lumbar area, keeping your abs tight and glutes contracted. The trunk should remain still, and the movement should be performed only through the hips with the help of the legs.

Cycling on a stationary bike

Adjust the saddle height so that your leg is slightly bent at the lowest point of the pedal. The saddle should also be adjusted horizontally to ensure comfortable seating. Set the handlebar height to a level that allows you to reach comfortably. Lower handlebars offer a sportier position, while higher handlebars are more comfortable for the spine. Make sure the pedals are firmly attached, and any straps are properly fastened on your feet. Warm up at a moderate pace for 5-10 minutes before starting your exercise. You can also perform some dynamic stretching exercises to warm up your muscles. Begin at a moderate pace and gradually increase the intensity. Adjust the resistance according to your abilities and goals. For a more intense workout, incorporate intervals – alternate short segments of high intensity (30 seconds to 1 minute) with rest periods (1-2 minutes). The workout should last between 20-60 minutes depending on your fitness level and goals. After exercising, slow down the pace and allow your body to gradually calm down for 5-10 minutes. Perform some stretching exercises to relax your muscles. Make sure you have water with you throughout the exercise and maintain proper hydration. Keep your back straight and shoulders relaxed. Avoid leaning too far forward or backward. If you have any health problems, consult your plans with a doctor or physiotherapist before starting. Following these steps ensures safe and effective exercise on a stationary bike.

Cycling

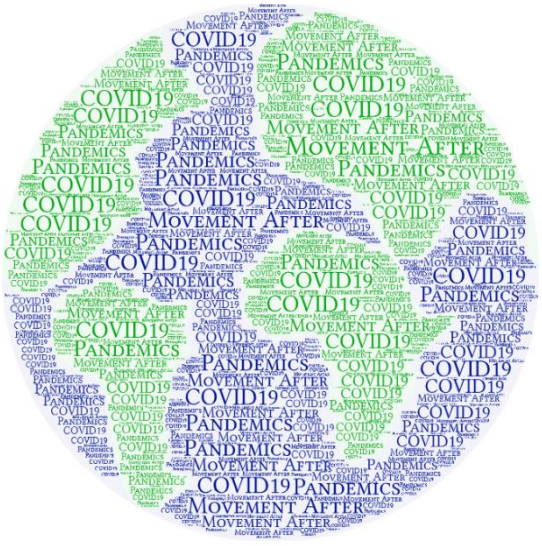
Cycling is a great way to improve cardiovascular health, strengthen muscles, and enhance overall fitness. It is an excellent choice for light aerobic activity. First, choose a suitable type of bicycle according to your needs. A city bike is suitable for riding on flat, paved roads and bike paths, a mountain bike is ideal for off-road trails, and a road bike for long distances on asphalt. Make sure the bike is properly adjusted to your height and is in good technical condition. Wear a helmet to protect your head, reflective clothing, and lights for better visibility, especially when riding in dim light or darkness. Comfortable clothing and footwear are essential for a pleasant ride. Reflective elements and lights increase your safety by making you more visible to other road users. Choose a suitable route, starting with flat and safe roads, ideally bike paths or less busy roads. Choose a route that matches your fitness and experience level. Start with short distances (3-5 km) and gradually increase the distance according to your fitness. It is important to avoid routes with heavy traffic and prefer roads with low car traffic. While riding, pay attention to proper technique. Sit upright to reduce strain on the spine. Maintain a firm grip on the handlebars and breathe regularly. Keep a moderate and steady pace at which you can talk without difficulty (the so-called "conversational pace") and monitor your heart rate. Warm up briefly before riding to warm up your muscles, such as dynamic stretching. This helps prevent injuries and improves performance. After riding, gradually slow down the pace to cool down. Start cycling 2-3 times a week and gradually increase the frequency to 4-5 times a week based on your progress and feelings. Tracking the distance covered, time, and heart rate using a cycle computer or smartphone app will help you monitor your progress and set new goals. Records allow you to track your performance and motivate you to achieve better results. Do not forget adequate hydration. Drink water before, during, and after the ride to avoid dehydration. For longer rides, take a water bottle with you. Consume a balanced diet that contains enough carbohydrates, proteins, and fats for optimal performance and recovery. A nutrient-rich diet ensures enough energy and supports muscle recovery after exertion. This way, you can effectively use cycling as a light aerobic activity that supports your health and fitness. Regular cycling will improve your endurance, strengthen your cardiovascular system, and contribute to overall physical and mental health. Consult the optimal dosage with a physiotherapist.

Nordic walking

Nordic walking, also known as pole walking, is an excellent and accessible aerobic activity that uses special poles to increase walking efficiency and engage the upper body. This technique originated in Scandinavia and was originally designed for training skiers and cross-country skiers during the summer months. Nordic walking allows you to exercise your entire body, including shoulders, spine, and core muscles, making it a comprehensive activity. To start correctly, it is important to choose the right equipment. Poles should be specifically designed for Nordic walking, and their length should correspond to your height, reaching mid-chest. Choose comfortable shoes with a quality sole that provides sufficient support on various surfaces, from asphalt to forest trails. Clothing should be sporty, breathable, and suited to the current weather to ensure comfort. Before starting, ensure that the straps on the pole handles are securely fastened around your wrists and the pole length is set so that when holding the handles, your elbows are bent at a 90-degree angle. The basic walking technique involves a natural step, placing the poles forward at an angle of about 45 degrees. Move the opposite arm forward as you walk, with the hand moving back being straight and behind the body. It is important to engage the core, supporting spine stability and proper posture. Breathe regularly and deeply while walking. Inhale through the nose and exhale through the mouth. Warm up lightly and stretch before starting the training to prepare muscles and joints for movement. After finishing the walk, do a thorough cool-down and stretch the entire body. For beginners, it is suitable to start with 20-30 minutes of Nordic walking 2-3 times a week. As you gain fitness, more advanced exercisers can increase the duration or intensity of the training. Try varying the terrain difficulty or add intervals and hill climbs to increase the challenge. Nordic walking is a great way to strengthen the entire body, improve fitness, and achieve better overall well-being while enjoying time in nature.

Swimming is a easy aerobic activity

Swimming is an excellent form of easy aerobic activity that benefits the cardiovascular and musculoskeletal systems. It is important to hydrate before swimming – drink plenty of water before, during, and after swimming. Do a dry-land warm-up with simple exercises like jumping in place, stretching arms and legs, or arm circles. There are several swimming styles you can try. For aerobic exercise, front crawl, breaststroke, and backstroke are most suitable. In front crawl, lie on the water face down, alternately pull your arms forward, with one arm in the water and the other above, and kick your legs simultaneously. Breathe regularly – usually, every three strokes, take a breath by turning your head to one side. In breaststroke, lie on the water face down, pull both arms forward simultaneously, then spread them to the sides and bring them back to the body. Simultaneously perform leg kicks similar to frog kicks and breathe regularly after each stroke when your head is above water. In backstroke, lie on your back, alternately pull your arms backward, with one arm in the water and the other above, and kick your legs. Breathe regularly, with your face above water, allowing easier breathing. Beginners should swim for 20-30 minutes 2-3 times a week, starting slowly and gradually increasing the time spent swimming. Advanced swimmers can swim for 45-60 minutes 3-4 times a week, combining different swimming styles and adding interval training. After swimming, finish with a slow pace to lower the heart rate. It is important to swim always in a safe and controlled environment, focus on proper technique to prevent injuries, and stop and rest if you feel tired or in pain. Swimming is an effective and fun form of aerobic exercise that will improve your physical fitness and overall health. Consult the optimal dosage with a physiotherapist.



Light hiking as an aerobic activity

Hiking is a great way to start with aerobic activities, improve your physical fitness, and enjoy nature. Hiking can be used as a tool to improve fitness, relax, or explore new places. Choose a route appropriate for your current fitness level. For beginners, short and well-marked trails without significant elevation changes are suitable. Gather information about the route length, terrain, and difficulty, and monitor the weather forecast to prepare clothing and necessary equipment accordingly. Proper clothing is crucial for comfortable hiking. Choose comfortable and functional clothing with a layering system that allows you to adapt to weather changes. A waterproof jacket and pants are important in case of rain. Sturdy hiking boots will keep your feet dry and safe. For shorter routes, a smaller backpack with a volume of 10-20 liters will suffice, in which you can pack water (at least 1-2 liters), a small first aid kit, snacks, a map, and a compass (or GPS device). Pay attention to a relaxed and smooth technique while walking. Short and regular steps are more effective and less strain your muscles. Proper posture is important – keep your back straight and look forward. Take regular short breaks, drink water continuously, not just when you are thirsty, and find a comfortable pace that you can maintain for a long time. Do not overestimate your abilities and gradually increase the difficulty of your hikes. Safety comes first. Inform someone about your route and expected return time, follow the markings, and stay on marked trails. After returning from the hike, take time to recover. Rest, stretch your muscles, drink plenty of fluids, and eat light food. Evaluate your performance and experiences and plan future hikes considering the gained experience. Light hiking is accessible to almost everyone and is a great way to start with aerobic activities. Consult the optimal dosage with a physiotherapist.

Classic cross-country skiing

Classic cross-country skiing is a great way to engage in winter sports, improve fitness, and enjoy nature. First, choose a suitable type of skis for the classic style. Check the ski stiffness according to your weight to achieve optimal control and glide. Choose comfortable ski boots that provide enough support and insulation, and make sure they are compatible with your bindings. Poles should be approximately shoulder height (about 83% of your height). Also, select appropriate clothing such as thermal underwear, an insulating layer, and a windproof outer layer. Use warm gloves, a hat, and goggles.

Use proper technique in classic cross-country skiing. Stand with a slight forward lean, with knees slightly bent and arms relaxed beside your body to maintain balance and stability. Alternately move one ski forward and the other backward. With each step, push off with the opposite foot and hand. The arms work similarly to walking, with the right arm forward with the left leg, and vice versa. Use the heel and midfoot for the push-off and push-off energetically to gain momentum and speed. After the push-off, let the ski glide on the snow, maintain a stable body position, and use inertia to extend the glide.

Start on flat terrain and gradually progress to gentle hills. Practice balance and glide on one foot and the correct push-off and glide technique at a slow pace. Ski on marked and groomed trails, always carry a mobile phone, and inform someone of your route. Use sun protection and stay hydrated. Regularly check and wax your skis and store the equipment in a dry and cool place. Consult your training program with a cross-country skiing expert who will help you improve and ensure proper technique execution. Also, ski with friends or family to enjoy shared moments in nature. Enjoy the beauty of the winter landscape and regularly take breaks for refreshments and rest.

Stretching exercise

Stretching is a form of physical activity that involves stretching muscles and tendons to improve their flexibility and range of motion in the joints. Regular stretching exercises can contribute to better mobility in sports activities, reduce the risk of injuries, and overall improve physical health. There are various types of stretching. Static stretching involves stretching a muscle into a comfortable position and holding it for a certain period, usually 15-30 seconds. An example is stretching the hamstrings by bending forward and holding the position. Dynamic stretching involves controlled movements that gradually increase the range of motion and speed. An example is arm or leg swings. Ballistic stretching involves rapid and jerky movements that stretch the muscles beyond their normal range. This type of stretching can be risky and is not suitable for everyone. PNF (Proprioceptive Neuromuscular Facilitation) combines static stretching with isometric contractions and requires a partner to help with stretching the muscle and then relaxing it. The benefits of stretching are multifaceted. Regular stretching improves the elasticity of muscles and tendons, leading to a better range of motion. Stretching improves blood flow to the muscles, which can speed up recovery and reduce muscle fatigue. By improving flexibility and range of motion, stretching can reduce the risk of muscle and joint injuries. Stretching has relaxing effects and can help reduce tension and stress. Regular stretching can correct muscle imbalances and promote proper posture. Before starting stretching, it is important to warm up the muscles with light exercise, such as walking or jogging in place, to prevent injuries. Stretch slowly and avoid sudden movements that can cause injury. Breathe naturally and regularly, never hold your breath while stretching. Stretching should be comfortable and pain-free; if you feel pain, stop immediately. For the best results, stretching should be part of your daily routine or at least several times a week. Stretching is a simple and effective way to improve your physical health and well-being. By integrating different types of stretching into your exercise routine, you can achieve better flexibility, prevent injuries, and improve your overall physical performance.

m. triceps surae

For stretching the m. triceps surae muscle, a deep lunge position is used. The back leg is extended at the knee joint while the foot of the back leg remains in full contact with the ground. Dorsal flexion in the ankle joint of the back leg is increased by gradually increasing the flexion in the knee joint of the front leg.

m. iliopsoas

To stretch the m. iliopsoas muscle, a kneeling position on one knee is used. The lower limb being knelt on is the one being stretched. Weight is transferred to the front lower limb, and flexion in the knee joint of the front lower limb is gradually increased, effectively stretching the m. iliopsoas muscle.

m. rectus femoris

Stretching the m. rectus femoris muscle – Stretch it similarly to m. iliopsoas while adding passive flexion in the knee joint of the back lower limb. This method ensures effective stretching of the m. rectus femoris muscle, achieving optimal tension and extension of muscle fibers.

m. rectus abdominis

The starting position is lying on the stomach with palms placed under the shoulders, and fingers pointing forward. Stretch by passive extension of the trunk, achieved by gradually extending the elbow joints, lifting the chest off the ground, and arching in the lumbar region. This method allows effective stretching of the m. rectus abdominis muscle, improving its flexibility and helping to relieve tension in the abdominal area. During the exercise, it is essential to maintain smooth and controlled movements, avoiding sudden jerky motions. Focused and deep breathing during stretching promotes muscle relaxation and increases the efficiency of the stretch. Maintaining symmetrical shoulder and hip positions is crucial to avoid improper spinal load. For maximum effect, this exercise should be repeated regularly, gradually increasing the range of motion within individual capabilities.

hamstrings

The starting position is sitting with extended knee joints and legs stretched out in front of the body. Legs should be about hip width apart, with feet pointing upwards. Perform the stretch by gradually flexing the trunk forward, aiming for maximum possible stretch without bending the knee joints. Hands can be placed on the thighs, or knees, or attempt to reach the feet depending on individual flexibility. Gradual and controlled forward bending ensures effective stretching of the posterior thigh muscles, specifically m. biceps femoris, m. semitendinosus, and m. semimembranosus. Even deep breathing during stretching helps relax muscles and increases exercise efficiency. While performing this exercise, one should feel slight tension in the back of the thighs, but not pain.

m. trapezius

Stretching the m. trapezius muscle – Stretch the m. trapezius muscle while sitting on a stable surface, ensuring the spine is in a neutral and upright position. Sit on the hand of the side you plan to stretch, fixing the shoulder and preventing it from moving upwards. Place the other hand on the opposite side of the head and gently pull the head towards the opposite shoulder. During stretching, you should feel slight tension on the side of the neck and upper trapezius. Ensure the movement is slow and maintain smooth and deep breathing. For optimal results, perform this stretch regularly, especially after prolonged sitting or activities involving repeated head and shoulder movements.

paravertebral muscles

Start in a kneeling position on your heels, ensuring the knees are hip-width apart and feet relaxed on the ground. Extend arms forward, placing hands on the ground with fingers pointing forward. Slowly perform maximum flexion of the trunk forward to reach a position where the forehead can gently touch the ground. This movement focuses on extending and stretching the paravertebral muscles along the entire length of the spine from the cervical to the lumbar region. During stretching, maintain smooth and deep breathing to help relax muscles and increase stretching efficiency. Exhale to deepen the trunk flexion, releasing tension in the back with each breath. For maximum benefit, combine this stretch with other exercises aimed at strengthening and relaxing the back muscles.

forearm extensors

Perform the stretch while kneeling on the heels, providing a stable and comfortable starting position. Place the dorsal side of the forearms on the ground, with fingers pointing towards the body. Slowly and controlled, transfer body weight onto the hands, ensuring full extension in the elbow joints. This method ensures effective stretching of the forearm extensor muscles. While performing the stretch, maintain a straight back and a neutral neck position to avoid excessive strain on other body parts. Deep and even breathing helps relax muscles and increases stretching efficiency. You should feel slight tension in the forearm area. Regular performance of this stretch can help improve forearm flexibility.

forearm flexors

Stretching the forearm extensor group – Perform the stretch while kneeling on the heels, providing a stable starting position. Place the dorsal side of the forearms on the ground, with fingers pointing towards the body. Gradually transfer body weight onto the hands, ensuring full extension in the elbow joints. It is important to perform the movement slowly and controlled.

intracapular muscles

The starting position is kneeling on all fours. Move the upper limb on the side you want to stretch into maximum adduction at 90° flexion in the shoulder joint, achieving scapular protraction. Ensure proper execution of the exercise with emphasis on smooth and controlled movements to avoid overloading or injuring muscles and joints.

adductors

Stretching the adductor muscle group of the thigh – Begin the stretch by kneeling on the knees with hands resting on the ground, providing a stable starting position. To stretch the thigh adductor muscles, move the lower limb you want to stretch into 90° flexion in the hip joint and then perform abduction. It is important to perform this stretch slowly and controlled. While stretching, maintain proper trunk and limb positions, focusing on even and deep breathing. Slow and controlled movements ensure optimal muscle stretching, improve flexibility and contribute to overall muscle tension release. To achieve maximum effect, this exercise should be repeated regularly, gradually increasing the range of motion within individual capabilities.

m. piriformis

The starting position is lying on the back with lower limbs in flexion. Place the ankle of one lower limb on the knee of the other lower limb, creating a position resembling the number four. Then passively perform flexion in the hip joint of the lower limb that remains on the ground. While performing this stretch, it is important to maintain a stable trunk position on the ground and focus on slow, controlled movements. Even deep breathing helps relax muscles and increases stretching efficiency. For optimal results, perform this stretch regularly, gradually increasing the range of motion within individual capabilities.

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Exercise with a strengthening rubber/expander/theraband

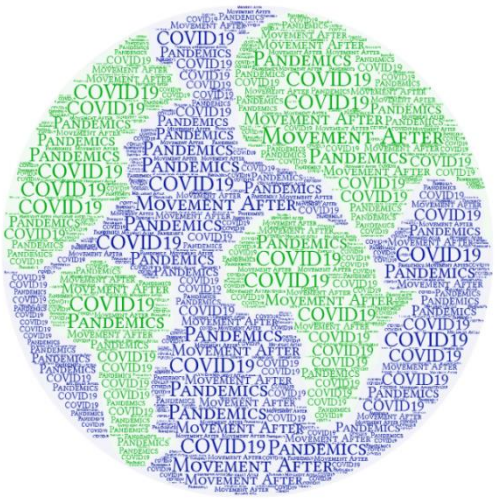
Exercise with a resistance band, expander, or theraband is an effective way to strengthen muscles, improve flexibility, and enhance overall physical fitness. Resistance bands are elastic bands made of latex or other flexible materials that provide resistance during exercise. They are suitable for people of all ages and fitness levels because they allow for resistance adjustment according to individual needs. Exercise with resistance bands offers many advantages. One of the greatest benefits is their portability and ease of use anywhere - at home, in the gym, while traveling, or outdoors. Resistance bands allow for a wide range of exercises that can target various muscle groups, including the upper and lower limbs, back, abdomen, and shoulders. They provide constant resistance throughout the entire movement, which helps improve muscle strength, endurance, and stability. This resistance is uniform and continuous, meaning the muscles are engaged throughout the entire phase of the movement, increasing exercise efficiency. At the beginning of resistance band exercises, it is important to choose the correct level of resistance. Resistance bands are usually color-coded according to resistance levels, from lightest to heaviest. Start with lower resistance and gradually increase it as you improve your strength and technique. It is important to maintain proper form and technique during exercises to prevent injuries and ensure maximum effectiveness. Focus on controlled and smooth movements, avoiding sudden and jerky motions that could lead to injury. When exercising with a resistance band, you can perform various types of exercises. Exercise with a resistance band is versatile and effective, allowing you to work on different muscle groups and is suitable for all fitness levels. Regular exercise can improve your strength, flexibility, and overall physical fitness. Additionally, this type of exercise is very gentle on the joints, making it ideal for people with injuries or joint problems. By integrating resistance band exercises into your fitness routine, you can achieve significant improvements in your physical health and well-being.

Glute Bridge

Starting position: Place a resistance band above your knees. Lie on your back with your legs bent and drawn in. You can keep your feet flat on the ground or support yourself only on your heels (harder variant).

Execution: Exhale, activate the gluteal muscles and core muscles, and lift the pelvis. Raise it to a height where your knees, hips, and shoulders are in line. Hold the contraction at the top position for 1-2 seconds. Then inhale and return to the starting position, immediately continuing with the next repetition. You can make the exercise harder by adding abduction and adduction at the top position or by holding the isometric contraction for a longer period.

Common mistakes: Small range of motion, arching in the lower back, uncontrolled movement, insufficient activation of the gluteal muscles.

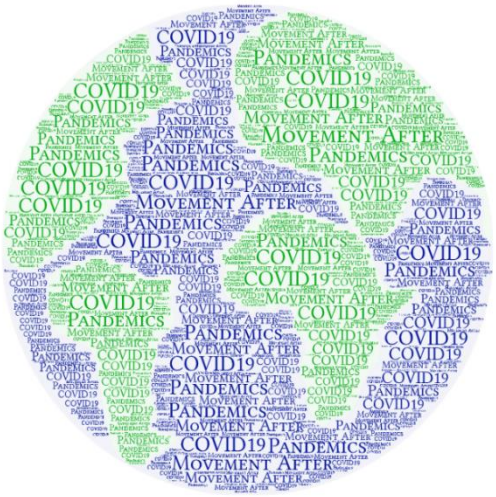


Side Squat

Starting position: Attach one end of the resistance band to the bottom of a ladder. Place the opposite end on the ankle of the leg that is further from the ladder. Stand sideways to the ladder with your feet hip-width apart.

Execution: Inhale at the initial phase, then step to the side along with a squat. Choose the depth of the squat to maintain the natural curvature of the spine and avoid leaning forward in the trunk. Exhale while activating the gluteal muscles and the front of the thighs and return to the starting position.

Common mistakes: Small range of motion, leaning forward, knee rotation.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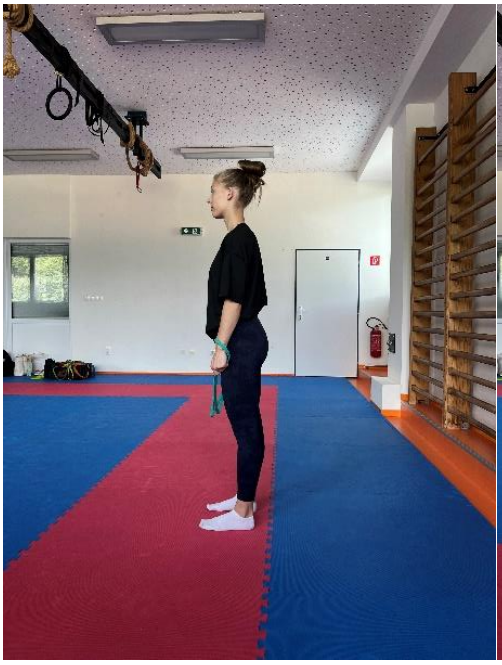
Reverse Lunge with Chest Fly

Starting position: Hold a theraband with both hands and extend it in front of you. Feet are side by side at hip-width.

Execution: Inhale and step back with one leg into a lunge. Rotate the torso to the side and exhale while extending the arms sideways. Inhale and return the arms to the front position and step back to the initial position, then repeat on the opposite side.

Common mistakes: Uncontrolled swinging motion.



Sidewalk

Starting position: Place a resistance band above your knees. Hands can be placed on the hips or in front of you. Slightly bend your knees and add a slight forward lean of the trunk. Feet are about shoulder-width apart.

Execution: With a tight core, take a step to the side and then bring the other leg in. Repeat to the other side. Alternatively, you can take several consecutive steps to one side and then return to the other side.

Common mistakes: Arching in the lumbar spine, knee rotation.

Standing Leg Abduction

Starting position: Slightly bend your legs and transfer weight to one side. Make sure the supporting leg is actively engaged and not hanging at the hip joint.

Execution: Exhale and abduct the leg to the side, then inhale and return it. Repeat on one side, then switch to the other side.

Common mistakes: Excessive leaning forward, arching in the back, inactive gluteal muscles and thighs on one leg.

Diagonal with Expander

Starting position: Stand with feet hip-width apart. Step on the resistance band with your left foot and loop the other end over your palm.

Execution: Exhale and turn your palm upwards, pushing the band up. Perform several repetitions, then switch sides.

Common mistakes: Loose core, the arm movement does not follow a diagonal path.



Boat

Starting position: Lie on your back. Loop the expander under your feet and bend your hips, knees, and ankles at a right angle. Hold the other side of the band in your palms and extend your arms in front.

Execution: Inhale and extend your arms over your head as you exhale. Keep your core tight and lower back pressed against the ground. The head can remain resting on the ground.

Common mistakes: Arching in the lower back, legs falling lower.

Standing Leg Extension

Starting position: Attach one end of the resistance band to the bottom of a ladder, and loop the other end under your foot or around your ankle. Hold the ladder with both hands at shoulder height, straighten your back, and look straight ahead.

Execution: Exhale and extend your leg, pressing your foot against the resistance. Inhale as you return. Repeat on one side, then switch sides.

Common mistakes: Arching in the lower back.

Kneeling Leg Curl

Starting position: On all fours with knees aligned under the hips, wrists under the shoulders, and elbows slightly bent. Try to keep the back and head in one line throughout the movement.

Execution: Lift one leg first, moving only as far as you can without arching your lower back. Focus on engaging the glute muscles and hold the final position for 2-3 seconds.

Common mistakes: Back not straight, hands not actively supporting.

Kneeling Leg Abduction

Starting position: Same as the previous exercise.

Execution: Lift the leg to the side. Do not rotate the torso but lead the movement with the glute muscles. You can hold the contraction for a few seconds.

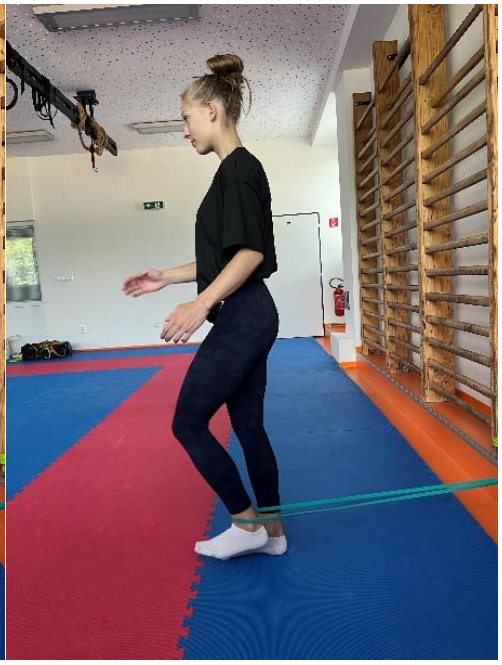
Common mistakes: Excessive range of motion, compensating by rotating the pelvis.

Marching with Resistance Band

Starting position: Attach one end of the resistance band to the bottom of a ladder, loop the other end under your foot, and turn your back to the ladder. Stand at a distance where the band is taut.

Execution: Exhale and lift the leg bent at the knee (as if stepping onto a high step), bend the opposite arm, and extend it as if trying to touch the elbow to the opposite knee.

Common mistakes: Excessive resistance from the band, inability to maintain position.


Calf Raises

Starting position: Squat with the spine straight and head aligned with the spine. Place the expander on the lower thighs, legs spread apart, knees, and toes pointing outward. You can hold onto a ladder or chair.

Execution: Exhale and raise your heels. You can hold this position for 2-3 seconds.

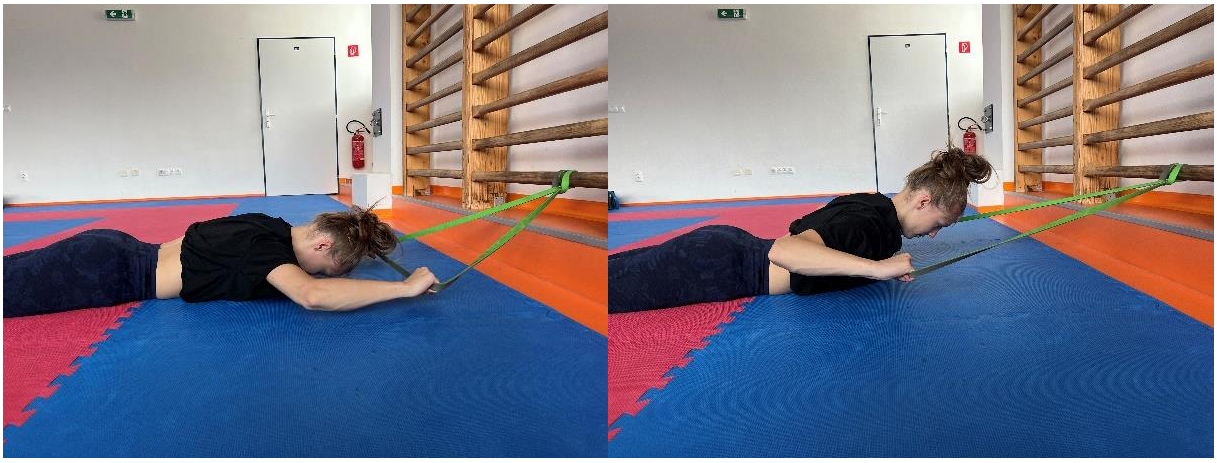
Common mistakes: Arching in the lower back.

Pulling Resistance Band While Lying on the Stomach

Starting position: Attach the band to the bottom of a ladder or similar. Lie on your stomach on the mat at a distance where the band is taut with arms extended. Rest your head on your forehead.

Execution: Exhale and pull the shoulder blades together, pulling shoulders away from the ears and elbows to the body. Lift your head and upper torso off the mat up to the lower ribs.

Common mistakes: Lifting shoulders to the ears, excessive range of motion in the lower back.



Seated Resistance Band Row

Starting position: Sit down and place the band under your feet, holding the other end in your hands.

Execution: Straighten your back and exhale while pulling the band towards your chest to engage the muscles between the shoulder blades.

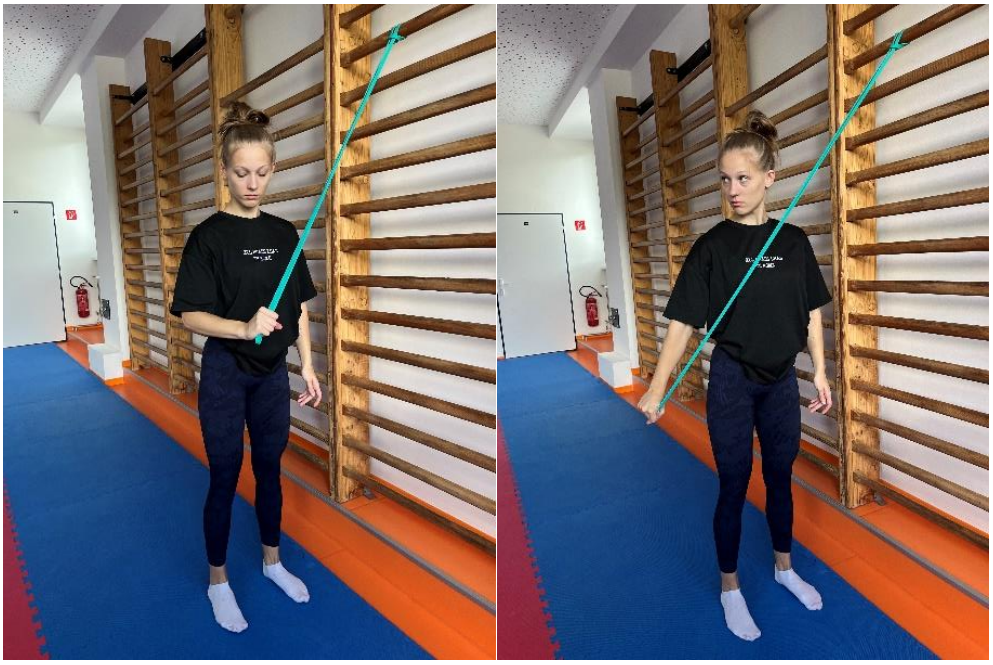
Common mistakes: Lifting the shoulders and engaging the upper trapezius.

Triceps Pushdown

Starting position: Attach the resistance band to the top of a pull-up bar or ladder. Stand with feet slightly apart, sideways to the ladder. Hold the band with a hand, elbow bent at approximately 90 degrees.

Execution: Exhale and straighten the arm at the elbow, pulling the band down and away from the body.

Common mistakes: Insufficient range of motion, arching the back, uncontrolled movement.



Overhead Arm Raise

Starting position: Attach the band to a ladder, and hold it with both hands, arms extended at shoulder width. Keep the back and head straight, feet hip-width apart, and knees slightly bent.

Execution: Exhale and raise your arms overhead (as if forming a 'V' shape).

Common mistakes: Arching the back, lifting shoulders to the ears.

Internal and External Shoulder Rotation

Starting position: Attach the resistance band to a ladder at elbow height. Stand sideways to the ladder. Bend your arm at the elbow to a right angle, holding the band so it is taut in the starting position. Choose a band with lower resistance.

Execution: With the arm closer to the ladder, pull the forearm towards the stomach, keeping the elbow close to the body. With the arm farther from the ladder, rotate the forearm outward, also keeping the elbow close to the body.

Common mistakes: Lifting the elbow away from the body.

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