Slide 1

Fundamental - basic movement patterns, preparing for basic physical activity.

Slide 2

What are movement patterns?

These are basic movements that we actually use in our everyday life.

Slide 3

We distinguish 7 basic movement patterns:

1. Walking pattern,

2. Squat pattern,

3. Trunk flexion pattern,

4. Trunk extension pattern,

5. Pushing pattern,

6. Pulling pattern,

7. Trunk rotation pattern.

Slide 4 - 5

Walking Pattern

During walking, the body constantly momentarily loses and regains balance. However, some conditions cause balance disturbances and develop an incorrect walking pattern. These include, among others: knock knees, pelvic drop during leg transfer, excessive trunk lean, and flat feet. During walking, the silhouette should be upright. The contact of the foot with the ground should start from the heel. When carrying heavy objects (e.g., shopping bags), it is worth tensing the abdominal muscles to stabilize the spine in the lumbar region and relieve the paraspinal muscles.

Slide 6 - 7

Squat Pattern

In everyday life, we use this movement pattern, among others, to pick up objects from the floor. A common mistake is lifting weight with straight legs. This overloads the paraspinal muscles and intervertebral discs. Incorrect pattern causes postural defects. Therefore, it is necessary to take care of it daily. During a squat, the legs should be bent to the same degree - symmetrically. The back should not arch but remain straight. During trunk extension, it is worth tensing the abdominal muscles to stabilize the spine and pelvis. Squats are a valuable exercise to perform. A properly executed squat involves pushing the hips back and bending the knees simultaneously. The optimal depth of the squat should reach slightly below the height of the knees.



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Trunk Flexion and Extension Patterns

Every day we bend over, for example, reaching for objects. Bending the back in an arch causes strain on the paraspinal muscles and can lead to pain. Therefore, it is worthwhile to train the correct pattern of trunk flexion movement. A good exercise is bending the trunk in a standing position. To perform it, stand with a slight stride, interlace your hands behind your neck, and gently pull your shoulder blades together for back stabilization. Then slowly bend the trunk with slightly bent legs until tension occurs in the hamstrings and tendons. The return to the starting position must be done in a controlled manner. It's good to do bends several times a week for 10 repetitions.



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Pushing Pattern

Pushing mainly engages the shoulder muscles, triceps, and chest. In particular, people performing tasks that involve upper limb movement asymmetry should ensure a proper pushing movement pattern. In everyday life, pushing occurs most often when placing an object and "pushing it" onto a high shelf, pushing a shopping cart, etc. To develop this pattern correctly, it is sufficient to systematically perform push-ups in a standing position. To do this, stand with a slight stride in front of a wall and place your hands on it, shoulder-width apart. It is good to perform push-ups regularly - 10 repetitions.



Slide 12-13

Pulling Pattern

It is most often activated when lifting or moving objects in a bent position, e.g., when cleaning the apartment. Asymmetrical movements and jerking cause muscle overload and microdamage - sometimes leading to dysfunction of the back muscles. Bending the spine strongly presses on the intervertebral discs over time, causing them to become damaged and unable to cushion the vertebrae. The pulling pattern exercise involves slowly lifting a small weight in a bent position. Pulling mainly engages the back muscles responsible for body posture. To do this, stand with a slight stride, slightly bend your knees, and lean your torso forward - keeping your back straight. It's good to grab small weights, e.g., half-liter water bottles. In the next step, symmetrically pull your hands to your hips - 10 times each.



Slide 14-15

Trunk Rotation Movement Pattern

Trunk rotation is possible thanks to the articulations of the spinal column and ribs as well as peripheral joints. Each of them has a range of motion that allows for a complete trunk rotation. The largest range of rotation occurs in the lumbar and cervical spine. An exercise that engages the rotation mechanism along the entire length of the spine is trunk twists. Stand with a slight stride and raise your hands to chest level. Then slowly twist the torso so that the paraspinal muscles work along the entire length. When tension occurs, return to the starting position and perform the movement in the other direction - 10 repetitions each.



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In summary, movement patterns are an important element in various fields and serve to achieve specific goals and effects. Proper execution of movement patterns can contribute to improving body functionality, increasing efficiency, and achieving success in sports or dance. It is worth remembering that before starting training or rehabilitation, you should consult a doctor or trainer to ensure that the exercises performed are appropriate for our health condition and level of advancement.

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Time for exercises

https://www.youtube.com/watch?v=tXLV9YI\_ISY

All exercises refer to natural animal movements and are named accordingly, e.g., giraffe, duck, donkey, monkey, etc.

The aim of these exercises is:

a) improving joint mobility and stability,

b) even muscle development,

c) reducing the risk of injury or strain.