

The Best Sport for Rejuvenation

Many of us, upon reaching a certain **age**, decide to go to the **gym**. The reasons for changing our routine are mainly two: **losing weight** and **fighting aging**. There are other reasons as well, but they are in the minority. When a person walks into a gym, they are faced with an overwhelming choice: which **physical activity** is best for them? On top of that, at the **front desk** they push you to buy a **full service package**, including **swimming pool, weight room, cardio, Pilates, body pump, sauna**, and so on, insisting that if you pay for a **full year in advance**, you will save money. But which activity should you choose? Which one is truly effective in opposing **senility**?

To make the right choice, we must first clarify the **causes of aging** and learn how to **counteract them**. One of the main causes is when **catabolism** exceeds **anabolism** in our body. This problem can be solved. We need to **stimulate protein synthesis** in the cells of our organism.

Russian researchers at the **Moscow University of Physical Education** identified **four main factors** that activate **protein synthesis**:

- an increase in **anabolic hormones** such as **testosterone** and **somatotropin (growth hormone)**;
- a high amount of **free creatine**;
- the presence of **essential amino acids**;
- the presence of **H⁺ ions** in the cellular environment.

H⁺ ions are part of **lactic acid**. This is the theory. In practice, lactic acid immediately dissociates into **lactate** and **H⁺**. Most physical activities offered in gyms increase **H⁺ ions**, so regarding this factor necessary for protein synthesis, there is usually no issue.

Essential amino acids come from **nutrition** and do not depend on the type of sport we practice. However, we must always remember that our **daily diet** must be rich in **animal-based proteins** to ensure a complete supply of essential amino acids. At least **2 grams of protein per kilogram of body weight**.

Numerous **scientific studies** on different forms of **physical activity** have shown that a significant increase in **free creatine** inside muscle cells—specifically in **muscle fibers**—occurs after about **20 seconds of high-intensity exercise**. Neither **cardio**, nor **Pilates**, nor most **water-based sports** (with the exception of elite sprinter training) meet these requirements.

To increase **free creatine**, the effort must be **maximal or near-maximal**. The only

sport that **commercial gyms** can safely offer that meets these conditions is **bodybuilding**, where we can easily adjust the effort by increasing or decreasing the **load** without placing excessive stress on the **musculoskeletal system**.

Of course, there are other sports that can increase free creatine concentration in muscles. For example, by using the **Fartlek method**, where during **swimming**, **running**, or **cycling** training, periods of high intensity alternate with **active recovery**. However, asking a person of the so-called **third age**, who has just joined a gym, to perform **sprints** on a bike path basically means sending them to the **emergency room**—or even to the **cemetery**.

For **protein synthesis**, our body requires strong and decisive agents: **hormones**, specifically **somatotropin** and **testosterone**. A large number of studies have shown a **statistically significant increase in anabolic hormones** with **bodybuilding**. To activate the **hypothalamic–pituitary system**, we need **physical stress** or **strong emotional stimuli**. In bodybuilding, when exercises are performed **to muscular failure**, the necessary conditions are created to significantly increase protein synthesis.

It is true that even during **aerobics**, with a highly motivating coach, an increase in testosterone levels can be observed. However, **bodybuilding** remains **number one** for the **controlled stimulation of hormone production**.

Some people might think: *“Why work this hard? Wouldn’t it be easier to inject somatotropin or testosterone?”* Many people reason this way. Between the late **1980s and 1990s**, in the **United States**, some doctors promised elderly patients **rejuvenation** after cycles of somatotropin. Initially, everything seemed to work perfectly: after **2–3 months of GH injections**, people became stronger, more attractive, and their **skin looked 20 years younger**. But everything has a price. **Side effects**, such as **diabetes**, turned out to be more severe than the benefits. As a result, these practices were **banned in the USA**. Nevertheless, some enterprising doctors organized so-called **“GH tourism”** in **Mexico** or on various **islands**. I personally know a **bodybuilder**, a **NABBA world champion**, who developed diabetes as a result of GH injections.

As a consequence, activities such as **Pilates**, **aerobics**, **swimming**, and traditional forms of **cardio training** do not stimulate the production of the hormones we need and do not significantly increase free creatine inside cells. Therefore, **two key conditions for protein synthesis** are missing.

In addition to being ineffective, some activities can even be **harmful to health**. In aerobics classes, following a coach who demonstrates often **abrupt movements** with large **joint ranges of motion**, **tendon tears**, **muscle injuries**, and **intervertebral disc displacement** can occur. Even **running on urban sidewalks** damages the **Achilles tendon**, **knees**, and **lower back**.

In conclusion, we must be **very careful** when choosing a **sport**, whether the goal is to **feel better**, **lose weight**, or **fight aging**.