

Do We Really Know How to Train?

In this article, I would like to address a concept that, **at first glance**, may seem **illogical**: are we really sure that the **training methodology used for competitive athletes**, in most sports, **actually works**?

What prompted this question was a **TikTok video** in which a young **high jump athlete** documented his progress over the years—from the age of **fifteen**, when he cleared **6'5" / 1.96 m**, to the age of **twenty-six**, when he reached **7'2.5" / 2.20 m**.

A fifteen-year-old is still, in reality, a **boy** who has only recently reached **puberty**, and jumping **6'5" / 1.96 m** is already an **excellent result**. Clearly, this athlete possesses **exceptional genetic talent** and could, in theory, become a **world record holder**, surpassing the current unbeaten record of **8'0.5" / 2.45 m**.

However, **7'2.5" / 2.20 m** for a **26-year-old man** with **great genetically determined talent**, who has trained **consistently** and never gave up, is a **mediocre result**.

Modern **scientific research** has demonstrated that the **full maturity of the brain** and the **locomotor system** is reached around the age of **thirty**. In other words, the human body develops naturally according to its own timeline up to that age. This applies to **men**, while in **women** growth typically ends **two to three years earlier**.

Therefore, even a man who **does not practice sports**, spending his evenings on the **couch watching TV with a beer in hand**, will still **naturally improve certain physical abilities**—for example, the **standing long jump**—up to the age of **thirty**. This exercise, while simple and requiring no complex technique, is **highly informative** when it comes to assessing the ability to produce **explosive strength**, a key quality for **high jumpers**.

Scientific studies have also shown that:

- **muscle tissue** recovers approximately **90%** after a devastating workout within **15 days**;
- **bone tissue** requires about **20 days**;
- **tendons** need significantly more time to recover—at least **60 days**.

Despite the fact that these data are **publicly available**, many **national team coaches** force their **athletes** to train **two or three times per day**. It often happens that a new talent enters the **national track and field team** and begins what is called “serious” preparation. Shortly afterward, **muscle tears in the tendon area** appear.

What follows is often an even more devastating **surgical intervention**: a **healthy**

tendon is taken from the same athlete to replace the damaged one, or a **donor tendon from a cadaver** is used. In most cases, the athlete's **return to the national team** becomes **extremely difficult**.

I am well acquainted with a case from **Olympic sport**. At the **London 2012 Olympics**, the **Russian national judo team** was coached by the Italian **Ezio Gamba**, who was very open to **innovative training methods** proposed by a group of **sports scientists from Moscow**, led by **Victor Seluyanov**.

Somehow, they managed to convince the top sports authorities that the team should train **according to scientific principles**, rather than traditional methods. The result was outstanding: the Russian team finished **first**, winning **three gold medals, one silver, and one bronze**.

I personally know **Ivan Nifontov**, who finished **third**, despite being **technically superior**. He arrived in London **exhausted** and wanted to train more than what the scientists prescribed. On the **tatami**, he was fatigued. It was painful for me to watch him lose due to **poor endurance**, caused by **overtraining**.

A few years later, **Victor Seluyanov passed away**, and **Ezio Gamba**, for reasons unrelated to sport, lost his influence within the national judo team. As a result, those achievements were eventually **buried in history**.

One last anecdote. At that time, I had a **bodybuilder friend** named **Nikolaj**. He trained in a completely unconventional way: he would come to the gym, perform **two or three exercises**, and then leave. Everyone knew him, and the doors of every gym in the city were open to him.

He might train **chest** in one gym and, a few hours later, **legs** in another, explaining that the machines there were better. The common verdict was always the same: *"Nikolaj trains too little, therefore he is doing it wrong."*

Professional coaches insisted that an athlete must train for **hours**, not in sessions of **thirty minutes or less**. What none of the critics could understand was the fact that Nikolaj **kept improving**, gradually reaching the **international stage**.

His final competition was **triumphant**: he won the **Open class** at a **European tournament**, astonishing everyone with his **exceptional condition**. Sadly, he died young in a **car accident**.

Therefore, for me, there is **no doubt: we do not truly know how to train**. In my essay "**Athletic Preparation in Martial Arts—and Not Only**", available as a **PDF on my website**, I analyze this problem in **depth and detail**.