

A man who never lifted weights boosted general acceptance of weight training as much as anyone else — and more than most. His name: Dr. Peter V. Karpovich.

Dr. Karpovich was one of the most respected exercise physiologists of his time, teaching and conducting innovative experiments in what he called his "junkshop laboratory" at Springfield (Massachusetts) College. Springfield was and still is renowned for training physical educators, including countless physical directors at YMCAs throughout the country.

One student at Springfield College during the 1940s was Fraysher Ferguson, an outstanding weightlifter and gymnast. Ferguson was instrumental in having a group from York — Bob Hoffman, John Grimek, and John Davis — visit the college and give a demonstration. At the time, Dr. Karpovich believed — as did most physicians, coaches and physical educators — that lifting weights caused men to become "musclebound," slow, inflexible, and clumsy. When he saw Grimek and Davis in action, he was astounded at how quickly they moved and was especially impressed by the grace, flexibility, and coordination of the massively muscled Grimek.

Dr. Karpovich, a man with a marvelous sense of humor, loved to tell jokes on himself. Here is one of his favorites. To set the scene, he had heard as a young man that a professional wrestler or strongman could not reach to scratch between his shoulder blades and had to pay a boy to do this scratching. When Dr. Karpovich became a physician he was strongly opposed to weightlifting because he remembered this story, although he had never tried to verify it. Then an opportunity to test this story presented itself.

Here's how he told the story on himself: "One day Bob Hoffman visited Springfield College to give a lecture and to demonstrate weight lifting. He brought along John Grimek and John Davis. The lecture and demonstration were very impressive. During the question period, the opportunity arose to test the legend. Very sweetly, (I) said, addressing Mr. Hoffman 'Will you please ask Mr. Grimek to scratch his back between the shoulder blades?' There was silence. Hoffman looked at Grimek, Grimek looked at Hoffman. Then they and everybody else looked at (me).

"Said Hoffman, 'And why do you want Grimek to scratch his back?'

"'Because I have been told that weight lifters are so musclebound that they cannot scratch their backs.'

"'Well, John,' said Hoffman addressing Grimek, 'oblige the doctor and scratch your back.' And Grimek did, first with one hand, then with the other. He scratched from above the shoulder and then from below. David did the same. The audience roared with laughter at (my expense).

"Both men had huge muscles and, therefore, *should have been* muscle-bound. But they were like the bumblebee who flies, though expert aviation engineers have proved mathematically that a bumblebee cannot fly. The anecdote only illustrates how strongly we may cling to our prejudices and pass on unfounded 'information.""

Recalling the incident, Grimek remembers that he was very annoyed at being asked to do such a silly thing. He went far beyond back-scratching, giving Dr. Karpovich a display of gymnastics and flexibility that astounded him. Grimek showed full splits, backbends, handstands, and bent forward to place his elbows close to the floor without bending his knees. Needless to say, Dr. Karpovich was impressed.

Being an open-minded scientist, Dr. Karpovich reasoned that if he had been wrong about weightlifters being "musclebound," the conventional belief that weightlifters were necessarily slow might also be wrong. Because the most noticeable difference between weight trainers and other athletes is in the "over development" of their arms, shoulders, and chests, he devised a machine that measured the speed with which a test subject could turn a handle in front of his chest, using these "overdeveloped" muscles.

Dr. Karpovich tested three groups —sedentary liberal arts students, vigorous physical education students, and experienced weightlifters. Much to his surprise, the speed of the weightlifters' muscular contraction exceeded that of the athletic physical education students, who were second, and the liberal arts students, who finished last.

Having shattered another of his own erroneous beliefs, Dr. Karpovich decided to test another common assumption —that lifting weights was dangerous in that it produced a lot of injuries. He surveyed 31,702 men participating in weightlifting and found that the incidence of injuries was very low (1.5%) and that most injuries were minor, consisting of "pulled" muscles and tendons. The incidence of hernias was twenty times less than among an average selection of people.

This was the background when I was asked, in 1955, to prepare a book on weight training for the Prentice-Hall publishing company. Because the book would include specific training for weight lifting competition as well as for athletic conditioning and general strength and fitness, I wanted to have John Terpak work with me on the manuscript. (I considered Terpak the best weightlifting coach.) Prentice-Hall agreed with the idea of a co-author, but wanted someone well-known and respected in physical education circles. They asked me to provide the names of prominent men in physical education who also knew something about weightlifting.

I knew of three, in particular, who had studied weight training and gave Prentice-Hall the names of C. H. McCloy, University of Iowa; Dick Ganslen, University of Arkansas: and Peter Karpovich. (I was unable to persuade the publisher to include a third author, but did include the percentage system Terpak had used successfully as a guest coach of the Mexican national team. As far as I know, John Terpak was the first to use this systematically.) I had cited the Karpovich reports on speed of muscular contraction and incidence of injuries in a book I wrote for the Barnes Sports Library in 1954 (*Weight Lifting and Progressive Resistance Exercise*, later acquired by Ronald Press and still later by John Wiley & Son). I had considerable correspondence with McCloy and was able to persuade him to contribute to *Strength & Health*. I also had some correspondence with Ganslen, who had been a pole vault champion before he began coaching and teaching.

The staff at Prentice-Hall was familiar with Dr. Karpovich and also his wife, who taught at Columbia University and wrote about rehabilitative physical training under her maiden name, Josephine Rathbone. Prentice-Hall actually made the selection of the coauthor and arranged for me to meet with Dr. Karpovich in New York City at an apartment leased to Josephine Rathbone, near Columbia. At that point I didn't know that Ms. Rathbone was actually Mrs. Karpovich and thought to myself "that old rascal must have a paramour in the city!" In retrospect, I should have known better but never having met the good doctor I had no idea what a man of impeccable character he was.

The meeting with the Karpoviches was delightful. I was impressed with his knowledge and obvious intelligence and charmed by his friendliness and excellent sense of humor. We agreed to proceed with the book, each of us to review the others' work, but to write independently.

It wasn't until much later that I realized he had wanted to meet in order to evaluate my knowledge and especially my character before he would agree to collaborate. I went to New York thinking I was doing him a favor by letting him in on the project! Remember, I was only twenty-nine years old at the time and thought being editor of *Strength & Health* and having authored a book at twenty-eight made me quite an important fellow indeed! Looking back, I'm as proud of the fact that Dr. Karpovich was willing to work with me as of anything I've done in my seventy years. Peter Karpovich was a brilliant man, a fine person, and one of only a few prominent people I've known that I thought more highly of the longer I knew him.

As we worked on the book, exchanging portions as we completed them, Dr. Karpovich complained that I was eulogizing Bob Hoffman, I assured him that I was being objective and that Bob would not think I was praising him excessively —Bob wouldn't have thought it possible to do that! At one point during the discussion he said, "You know, I wouldn't have agreed to work with Bob Hoffman on a book."

I defended the references to Bob, saying that although it was true that he greatly exaggerated his own athletic achievements and made unsupportable claims for the effects of his nutritional products, these exaggerations and claims were not included in what I had written. I pointed out that Bob had inspired countless young people to live healthier lives by acquiring the exercise habit and had supported the sport of Olympic weightlifting to the point that — at the time --- the U.S. team was the world's best.

In the end, Dr. Karpovich, always a reasonable man, withdrew his objections to my "eulogy" of Hoffman and we finished the book. An amusing aspect of the successful launch of *Weight Training in Athletics* in 1956 (revised in 1983) was that Dr. Karpovich became an instant expert on everything connected with weight

training. In the book, he wrote Part II, seventy-two of 214 pages, and confined his contribution to what he knew about weight training — the scientific evidence on its effects that had been accumulated to that time. With tongue in cheek, he would often introduce me as a young man he had taught "every-thing he knows about weight lifting." If that didn't get a laugh, he would realize the person or persons believed he was serious, so he would explain.

One intriguing training question he forwarded was from a Dr. Von Saltza, who said his daughter was a promising swimmer and he wanted to increase her strength for the sport. He was experimenting with various approaches, such as having her wear heavy gloves while practicing swimming. I responded that I thought it would be better for her to practice the skills unencumbered, unless he wanted to have her tow a "wind sock" for drag, which wouldn't affect the movements of her arms and legs. I also



DR. PETER V. KARPOVICH

suggested some general strengthening exercises with weights. I wish I could remember the specific exercise recommendations, because Chris Von Saltza became a champion swimmer.

Dr. Karpovich had no patience with what he called "snake oil salesmen" who sold dietary aids he considered unproven. He pointed out that champion athletes came from every part of the world and all walks of life, with widely varying diets. In fact, it was his skepticism about poorly designed studies of special nutrients that — along with my medical writing experience —made me skeptical about the strength building effects of steroids. Stories of great improvement with steroids — like those touting soybean-based supplements and isometrics — were and still largely are anecdotal. (I remember

extolling the benefits eight hundred-meter record-holder Mal Whitfield received from weight training to Ken Doherty, the famous track coach. His response: "How do you know whether he excelled because of that training or in spite of it?") Regarding steroids, however, after seeing their effects on sprinters and other track and field athletes, as well as on weightlifters, I am convinced that the drugs are effective especially when administered to genetically gifted people.

The Iron Game has benefited greatly from Peter Karpovich's interest and the scientific studies he conducted on the effects of weight training. He and his wife were among the founders of the American College of Sports Medicine in 1954 and having his name as co-author of *Weight Training in Athletics* made the book acceptable to physical educators (who used it as a textbook for many years) and coaches, and paved the way for the present belief that strength training is

essential for success in just about every sport.

One seldom hears the term "musclebound" any more and muscular heroes abound in popular motion pictures, no longer portrayed as clumsy oafs. For that much credit should go to Dr. Peter V. Karpovich, whose influence lives on more than two decades after his death.