

Applying strength enhancement programs designed for athletes to boost health in regular people

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Strength training programs originally designed to improve athletes' performance are finding new applications helping regular people develop better physical strength, delivering benefits including illness prevention and care negation in recent years. Seiji Aruga, a professor at Tokai University School of Health Studies was one of the first researchers in Japan to focus on the benefits of strength training.

Interviewer: Masayoshi Nakane

Question: I hear you used to be a track and field athlete. What led you to enter the field of research?

Answer: I was a javelin thrower and began developing my own strength training program in an attempt to further my distance. During my graduate school days, I got into bodybuilding and powerlifting, and represented Japan in international bodybuilding competitions.



Even before entering graduate school, I was interested in researching sports science and training science—fields which at the time had not been subject to much research in Japan. After completing graduate school, I joined a company that was the first importer and seller of U.S. training machines and taping equipment, where I developed training programs for our customers and coached gym instructors in training methods.

Strength training gradually began to catch on as a method of enhancing athletes' performance, and I was called upon by Yasuhiro Yamashita, who currently serves as chairman of the Japanese Olympic Committee and vice chancellor of Tokai University, to help the All Japan Judo Federation train their athletes. I believe the Federation was one of the first national sports organizations in Japan to utilize specialist strength training instructors in this way.

Q: I guess many instructors at the time viewed strength training in a negative light...



A: Some athletes also rejected the idea. However, others such as Yoshio, Yukimasa, and Kenzo Nakamura—the famed "Nakamura brothers" who starred at the 1996 Atlanta Olympics—were big proponents. In 2000, Kosei Inoue (current chief coach of the Japanese judo team), who I had trained since his high school days and who had conducted ongoing strength training, won a gold medal at the Sydney

Olympics while a university student, giving a rapid boost to awareness of the need for such training.

In 1995, Tokai University opened the largest training facility in Japan, and the following



in my alma mater, where I worked to strengthen the university's respective

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sports clubs. We were one of the first universities in Japan to establish a Sports Support System for athletes in Tokai's designated "strengthening" (elite) sports clubs. This program, in which more than 1,500 students take part in standardized training regimens on an organizational level is unusual even by world standards, and we have had overseas visitors come to observe our methods.

Q: Tell us about the School of Health Studies, where you are based.

A: My primary research at present involves how to help members of the general public improve their health. I want to use the knowledge I have accumulated over my career to contribute to public health at large.



With the number of elderly residents in Japan set to further increase going forward, we will need people with multiple specialties who are able to manage operations in the field. The School of Health Studies operates based on four pillars: Physical Activities, Food and Nutrition, Mental Health, and Social Wellness, and we provide a balanced education that incorporates each of these fields. Our faculty comes from a range of backgrounds, including members who were heavily involved in sports clubs during their student days, as well as those who have never participated in sports. This diversity provides stimulation and new insights for all parties.

Tokai University's School of Health Studies is of the stance that physical activity should be approached as part of the field of health. The School is extremely rich in diversity, and I look forward to seeing what our ex-students go on to achieve in society after graduating.

Professor, Department of Health Management, Tokai University School of Health Studies

Seiji Aruga

Born in 1962. Graduated from Tokai University School of Physical Education (Master of Physical Education) in 1987, before joining Tokai University Sports Medical Science Research Institute as a research assistant in 1996. In 2008 he became a professor at the Sports Medical Science Research, and in 2018 a professor at the Department of Health Management, School of Health Studies. He is a visiting researcher at the Japan Sport Council, and vice-chairman of the Japan Association of Training Instructors.

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