

# KAATSU®



World Champion  
**MICHAEL  
ANDREW**  
*Recovering with the  
KAATSU Cycle*

**KAATSU  
MAGAZINE**  
VOLUME 3, ISSUE 2

**READY, RECOVER, RESTORE WITH KAATSU**

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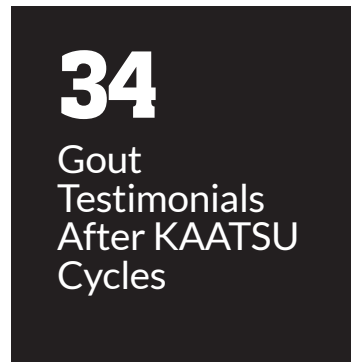
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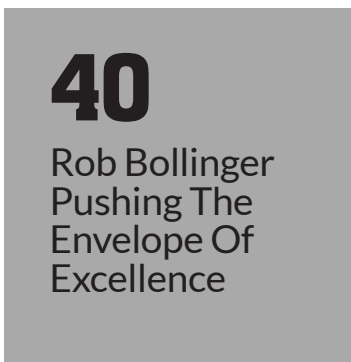
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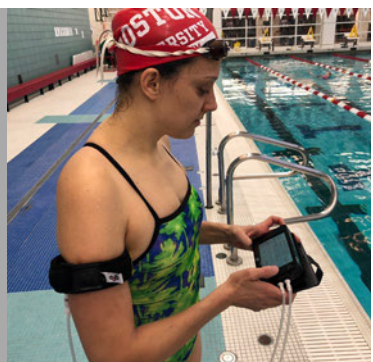
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# THE LETTER FROM THE EDITOR



With sports largely coming back online, albeit without foreign spectators in the stands at the delayed Tokyo Olympic Games expected to start on July 23rd, it is a good time to examine and explain how the KAATSU Cycle mode can be incorporated in an athlete's training and competition schedule.

KAATSU users know how to use their KAATSU equipment, either the KAATSU Master 2.0, KAATSU Nano, KAATSU Cycle 2.0, KAATSU C3 or KAATSU B1 models. They seamlessly and unfailingly integrate doing KAATSU Cycles in the course of their daily workouts and off training days. Whether they are around the home relaxing on the weekends or during long days of domestic or international travel, athletes can use their KAATSU

equipment highly effectively and efficiently in their warm-ups and cool-downs from practices and competition.

This issue focuses on some of the myriad ways KAATSU can help you recover, regain and restore yourself at home, in the office, or during travel, effectively and efficiently. For those who may be too undisciplined or unmotivated to exercise, for those with weak knees or shoulders, and for those who are simply too busy, KAATSU enables the benefits of exercise and recovery to be achieved while sitting down and relaxing.

*Steven Munatones*  
Steven Munatones,  
CEO & Co-founder  
KAATSU.com  
Huntington Beach, California  
U.S.A.



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(And use SWIMMERMICHAEL code at  
checkout to support his journey.)

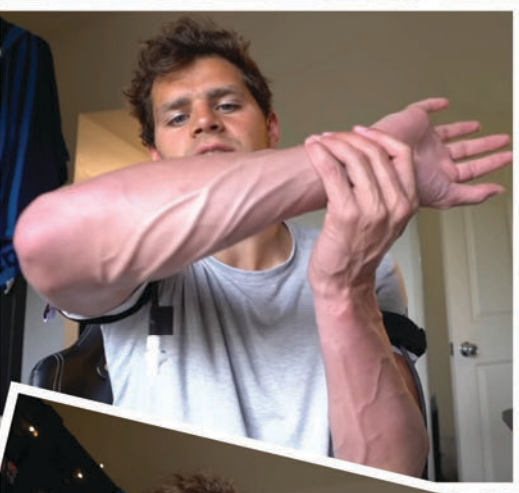
**SHORTENS**  
*Post-Exercise Recovery Time*

**ENHANCES**  
*Pre-Race Preparation*

**IMPROVES**  
*Athletic Performance*

**REDUCES**  
*Injury Rehabilitation Time*

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# MICHAEL+KAATSU:

## RECOVER FASTER, REHAB STRONGER, PERFORM BETTER

For who? Swimmers, water polo players, divers, stand-up paddlers, kayakers, triathletes  
For what? Strength, stamina, functional movement, mobility, flexibility,  
warm-up, recovery, KAATSU Cycle



[Michael Andrew](#) has been living the American dream for a number of years already.

Now in this postponed Tokyo Olympic year, one of the most visible and popular swimmers on the planet, is on the verge of living his Olympic dream.

Michael and his family, [coach-father Peter](#), mother-manager Tina, and younger sister Michaela have road tripped to swim meets across the country - and now they often travel internationally as the 21-year-old Michael has developed into one of the



fastest swimmers on the planet.

Michael, a 2016 [world champion](#) and 2018 Pan Pacific champion, specializes in the 200m individual medley, 100m [breaststroke](#) and 50m freestyle. He is renowned for his innovative training methods and currently serves as the [vice-captain](#) for the New York Breakers in the International Swimming League.

Michael and Peter have spent years identifying, testing, and using the most innovative and convenient modalities to train effectively and recover efficiently. Their aim has been to utilize an array of cutting-edge technologies that enable Michael to constantly improve - which he has achieved.

One of the technologies that Michael has used for the last few years is KAATSU, both in the pool for speed and strength and on dryland for recovery, especially before and after his grueling training sessions and during competitions. Michael currently uses the KAATSU Cycle 2.0, a portable, handheld device that can be conveniently used at home, in the pool, at the gym, on an airplane, and in



Michael will be the first world-class athlete - anywhere - to use the new KAATSU C3



hotel rooms during his away meets and travel.

[Steven Munatones](#), a former USA Swimming national team coach, explains, *“Michael uses KAATSU similarly to applications used by Navy SEALs, professional athletes in the NFL, NBA, MLB, NHL, and MLS, and Olympians from track & field to rugby. KAATSU can be*



used to build strength, improve stamina, increase speed, and range of motion. But its most convenient application is, frankly, [recovery](#) after intense workouts and between races during multi-day competitions - like the Olympics will be [see [here](#) and [here](#)].

KAATSU works because it naturally increases the elasticity of the vascular tissue throughout our bodies with a significant release of hormones and metabolites. Capillaries and veins are ubiquitous throughout our bodies. If these capillaries and veins were laid end-to-end, the collective length would circle the globe more than two times.

With KAATSU equipment, our capillaries and veins are naturally made more elastic and resilient. Even slight movement of our limb is a catalyst for a hormonal response. So, for example, just sitting down in the bleachers and playing on your phone with the KAATSU bands is sufficient to help efficiently remove lactate after a race. This is what Michael has discovered - the same thing that other professional and tactical athletes have long known.

One example of his innovative use of KAATSU was when Michael had three big swims in 47 minutes at the [FINA World Junior Championships](#) [see [here](#)]. There was not enough time to do a normal warm-down, go to the awards ceremony, and return to the blocks with that kind of schedule. So his recovery relied on his handy KAATSU equipment.

Michael will be the first world-class athlete - anywhere - to use the new [KAATSU C3](#), the third generation KAATSU equipment that will be released in April. This device was developed with input from Navy SEALs and Olympic



KAATSU was invented in Japan in 1966 and is the world's leading automated BFR system for exercise, rehabilitation, and recovery.





*athletes. The KAATSU C3 includes customizable functions that are well-suited and invaluable to give athletes that competitive edge."*

Prior to the Tokyo Olympics, Michael will also be the first in the world to use the KAATSU B1, a next-generation device that not only works with the KAATSUfit app on smartphones, but also incorporates the functions of the [Masimo MightySAT™ Finger Pulse Oximeter](#) [see [here](#)], another leading technology that Michael utilizes.



KAATSU was invented in Japan in 1966 and is the world's leading automated BFR system for exercise, rehabilitation, and recovery. The patented pneumatic bands and algorithms improve blood circulation in the arms and legs which results in a natural cascade of physiological effects and significant hormonal release. The proprietary technology is supported by decades of research at top academic institutions from the University of Tokyo Hospital to Harvard Medical School as well as hundreds of peer-reviewed published studies.

Michael has used the original KAATSU Master, KAATSU Nano, and KAATSU

Cycle 2.0 to date. The pneumatic KAATSU Bands are interchangeably used with any of the KAATSU devices.

He will start using the KAATSU C3 in April and the KAATSU B1 later in July, with KAATSU AI later. Other swimmers can learn about and tap into the same technology and protocols by visiting [www.kaatsu.com](http://www.kaatsu.com) or downloading the [KAATSUfit](#) app on iOS and Android.

Use discount code SWIMMERMICHAEL for US\$50 off on the KAATSU C3 and KAATSU B1 products - good until July 23th, the Tokyo Olympics Opening Ceremonies.

Learn more about KAATSU and purchase [here](#) with US\$50 discount code **SWIMMERMICHAEL**.



# SINGLE-LIMB KAATSU WITH THE KAATSU C3, KAATSU B1, KAATSU A1

For who? Baby Boomers, retirees, busy executives, competitive athletes including runners, ice hockey players, soccer players, basketball players, stay-at-home employees

For what? Rehabilitation, functional movement, mobility, flexibility, recovery, KAATSU Cycle



**D**ecades ago since 1973, KAATSU inventor Dr. Yoshiaki Sato has performed and taught single-limb KAATSU for a variety of purposes.

Single-limb KAATSU is when KAATSU Air Bands are used only on one limb as opposed to the more commonly used dual-limb KAATSU (when KAATSU Air Bands are simultaneously placed

on both limbs with the same pressure). Single-limb KAATSU is most often used during physical therapy, rehabilitation or post-surgery recovery.

However, single-limb KAATSU is also used for limited KAATSU athletic performance drills under low pressures when one limb is notably weaker than the other limb.





This photo on left shows Dr. Sato teaching single-limb KAATSU to coaches and trainers for use by elite athletes for specific athletic performance drills, correcting imbalances in limb strength and functional movement, and for single-limb recovery (e.g., when a baseball pitcher uses KAATSU Cycles for recovery after intensely pitching in a game).



The photo on left shows Dr. Sato doing single-limb KAATSU on Harvard Medical School Professor of Neurology Peter Lansbury. Users always start with low-pressure KAATSU Cycles and incrementally increases the pressure.

In the photo on left, Dr. Sato is doing single-limb KAATSU with an older Japanese woman who is recovering from knee surgery.

In both cases with Dr. Lansbury and the women, the standard single-limb KAATSU protocol is to start KAATSU Cycles at very conservative (low) pressures.



**Single-limb KAATSU has been used since 1973 when KAATSU inventor Dr. Sato developed the protocol to help his broken ankle heal.**



Depending on level of recovery and the range of motion of the limb, the user can move the limb in the KAATSU Constant mode, but only after several sets of KAATSU Cycles.

With the newest KAATSU models (i.e., KAATSU C3, the KAATSU B1, or the KAATSU AI), there is an option that enables Single-limb KAATSU for individuals undergoing rehabilitation or in need of recovery of a single limb (e.g., like with baseball pitchers).

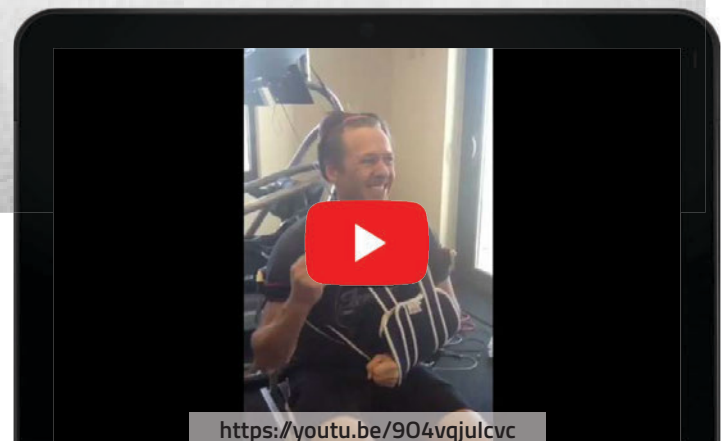
A simply KAATSU Plug enables this option on the new KAATSU C3 model.

In the KAATSU B1 model to be launched before the Tokyo Olympic Games, or the KAATSU AI to be released after the Tokyo Olympics, the KAATSU app can simultaneously direct different pressures to different limbs, and can also completely turn off

pressure on one band in order to do single-limb KAATSU.

Single-limb KAATSU has been used since 1973 when KAATSU inventor Dr. Sato developed the protocol to help his broken ankle heal. 2010 Olympic silver medalist Todd Lodwick used single-limb KAATSU to rehabilitate from a ski jump accident and recover fast enough to heal and not only serve as the USA Olympic Team flag bearer, but also to compete in the Nordic Combined event.

Single-limb KAATSU has been used since 1973 when KAATSU inventor Dr. Sato developed the protocol to help his broken ankle heal. 2010 Olympic silver medalist Todd Lodwick used single-limb KAATSU to rehabilitate from a ski jump accident and recover fast enough to heal and not only serve as the USA Olympic Team flag bearer, but also to compete in the Nordic Combined event.





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**Michael  
Andrew**  
World Champion  
Swimmer

REDUCES INJURY REHABILITATION TIME  
SHORTENS POST-EXERCISE RECOVERY TIME  
IMPROVES ATHLETIC PERFORMANCE

**WWW.KAATSU.COM**





# KAATSU SUPPLE LAUNCHES IN JAPAN

For who? Baby Boomers, stay-at-home mothers, retirees, stay-at-home employees  
For what? Strength, stamina, functional movement, mobility, flexibility, warm-up, recovery, stress relief, KAATSU Cycle

**W**hen Japanese KAATSU Instructor Ayumi Oikubo visited the United States before the COVID-19 pandemic, she noticed that KAATSU Global was encouraging its users to do KAATSU anywhere and anytime.

Upon her return to Tokyo, Oikubo launched her new service called the [KAATSU Online Studio \(www.kaatsu-supple.com\)](http://www.kaatsu-supple.com) that is designed for women. She explains, *"They can do KAATSU anywhere and anytime in a short time. They like to improve their*







Our clients are getting better, becoming more positive, and feel happier because of this service.

*lack of exercise, their poor blood circulation, and any disease specific to women.*

*Our mission is to enable Japanese women to become more healthy and more beautiful. We would also like to improve the Japanese gender gap (Japan's gender gap is ranked 121st among 153 countries). Many Japanese women have to raise their children without any help from their husband in Japan. Frankly, it is so difficult to get any free time for themselves. And it is difficult to return to work, so they can't*

*help but feel they aren't needed by society. We want to indirectly improve this situation by our KAATSU Supple service that enables these women to efficiently receive KAATSU guidance in short time periods while they are able to communicate with adults.*

*This way, they become better at improving their health, losing weight, and improving their mental frame of mind. Our clients are getting better, becoming more positive, and feel happier because of this service. I want them to be strong as a woman.*

*Our customers can select either a one-time payment or separate payments. The price of ¥18,000/month plus the cost of the KAATSU Cycle 2.0 enables them to do 4 personal training sessions with an online KAATSU Instructor.” For more information, visit KAATSU Supple on [Instagram](#), [Twitter](#) and a variety of media [here](#).*

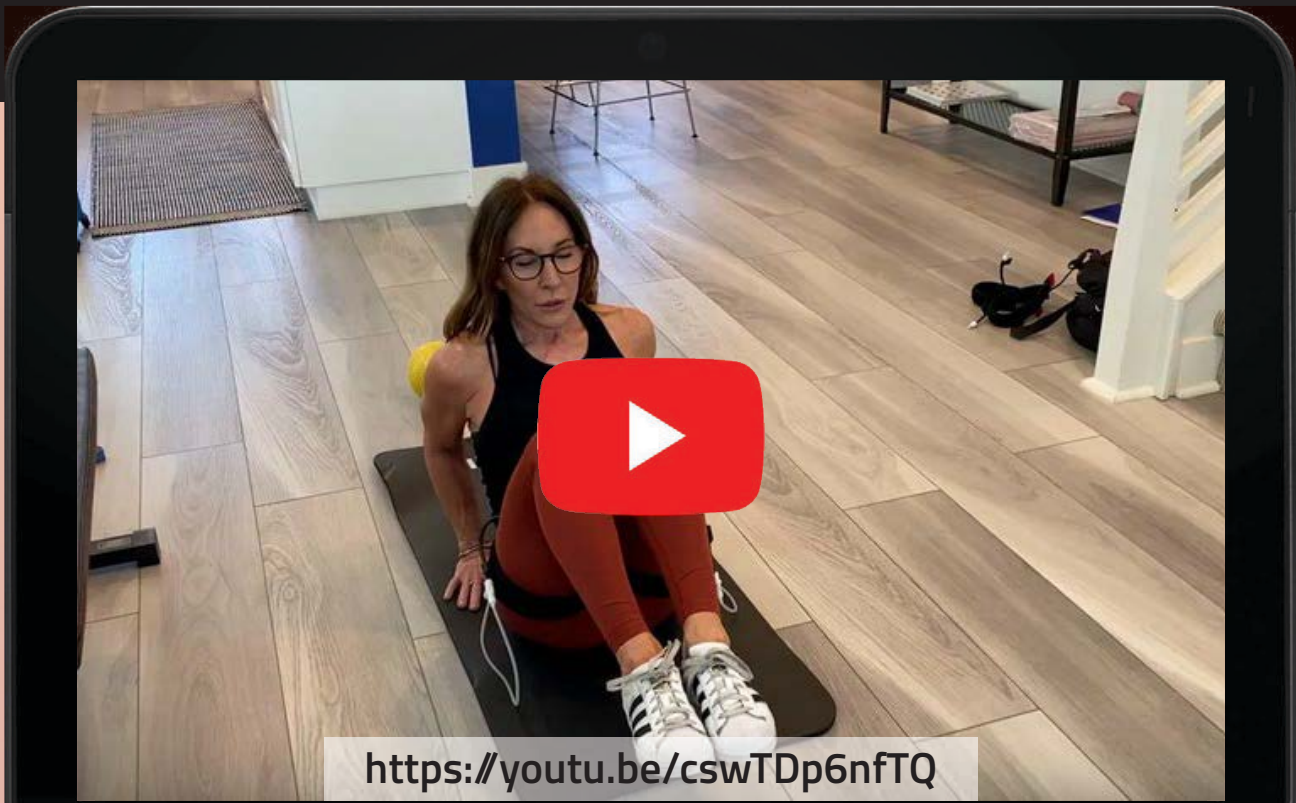
Oikubo's KAATSU Studio is [SuAi \(スアイ\)](#) with an [Instagram account here](#).

The KAATSU Instructors in the SuAi KAATSU Studio include Oikubo Ayumi ([おい くぼ あゆみ](#)), Iwasa Kaori ([岩佐 香](#)), Kuwahara Hazuki ([桑原 葉月](#)), Maeda Mai ([前田 舞](#)), Asari Miku ([浅利 未来](#)), Dewa Rika ([出羽 理画](#)), Ishida Manami ([石田 愛美](#)), Kaiko Miyu ([開高 みゆ](#)), and Onodera Shoko ([小野寺 祥子](#)).

# QUARANTINED?

## DO KAATSU AT HOME - CORE EXERCISES

For who? Stay-at-home employees, mothers, competitive athletes  
For what? Core, core strength, functional movement



All the exercises and movements above are performed regularly by Tina Newman, a 56-year-old aesthetician from Costa Mesa, California. She uses the KAATSU Cycle 2.0 model and her KAATSU Air Bands set usually on the lowest possible SKU pressure.



# QUARANTINED?

## DO KAATSU AT HOME - LOWER BODY EXERCISES

For who? Baby Boomers, older individuals, retirees, competitive athletes, runners, ice hockey players, soccer players, dancers, stay-at-home employees  
For what? Strength, stamina, functional movement, mobility, flexibility, warm-up, recovery, KAATSU Cycle



All the exercises and movements above are performed regularly by Tina Newman, a 56-year-old aesthetician from Costa Mesa, California. She uses the KAATSU Cycle 2.0 model and her KAATSU Air Bands, set usually on the lowest possible SKU pressure.

# Demographic Shifts Lead To Implementation Of KAATSU



For who? Baby Boomers, older individuals, retirees, older athletes, runners, walkers, stay-at-home employees  
For what? Strength, stamina, functional movement, mobility, flexibility, warm-up, recovery



**N**ever before in the history of mankind has the world had to deal with the current phenomenon of prolonged and continuous aging of the human species. Smaller families with fewer children and an increasing number of older people are causing

massive demographic shifts around the world.

While governments and society have been dealing with an aging population in countries like Japan and South Korea, even the fertility rates in Muslim countries and Sub-Saharan Africa are decreasing faster than ever before.

Countries are looking for solutions to these major demographic shifts — including technological alternatives like automation or telemedicine — in order to ease this unprecedented transition. But KAATSU

presents a simple, easy-to-implement BFR solution now.

Models like the KAATSU C3 can be used anywhere anytime by anyone.

The benefits and outcomes include muscle toning, strength building, improved balance and increased stamina. Older people do not need to go to the fitness club or a gym to workout; they can achieve all these goals by simply working around the house or their yard or garden and reap the benefits.



# THE KAATSU SMILE



Injured Olympian cures her seasonal-blues with 1 KAATSU Cycle

For who? Baby Boomers, retirees, competitive athletes,  
injured athletes, injured stay-at-home employees  
For what? Rehabilitation, recovery, functional movement, mobility,  
flexibility, KAATSU Cycle

One of the most important objectives that Dr. Yoshiaki Sato, the inventor of KAATSU the Original BFR, teaches KAATSU Instructors and KAATSU Master Specialists around the world is both surprising - and not surprising.

Dr. Sato teaches KAATSU so the users can recover faster, rehabilitate stronger, and perform better. This is

a purely psychological reaction and hormonal response. But he has an overarching fourth objective, a goal at once more profound and immediately apparent.

He wants to see KAATSU users smile. Their KAATSU smile is the concrete goal of the KAATSU users, KAATSU Instructors, and KAATSU Master Specialists.

This is true even if the athlete has just completed a vigorous workout or a physical therapy session.

Dr. Sato teaches that user's smiles are the most obvious and genuine human expression of sincere joy, pleasure, amusement, approval and relief (from pain or stress or frustrations).

At the U.S. Olympic Committee Training Center in Chula Vista, California, the USA Rugby national women's team (called the [Women's Eagles](#)) uses a KAATSU Master, mostly for rehabilitation.

When one of their athletes, All-World Cup Team member [Hope Rogers-Dellermann \(@ihope38\)](#), had been undergoing rehabilitation for several weeks, it was a tough period. But she was finally able to use the KAATSU Master unit under the tutelage of KAATSU Master Specialist David Tawil.

After a few gentle KAATSU Cycles while using a simple resistance band,

the Penn State graduate and two-time NCAA Most Valuable Player, felt a muscular sensation that made her smile broadly and immediately. Her countenance brightened when she felt pressure on her muscles with apparently simple movements. Her demeanor became even more friendly and laughter filled the training room.

The KAATSU smile ended another KAATSU session. Mission accomplished.

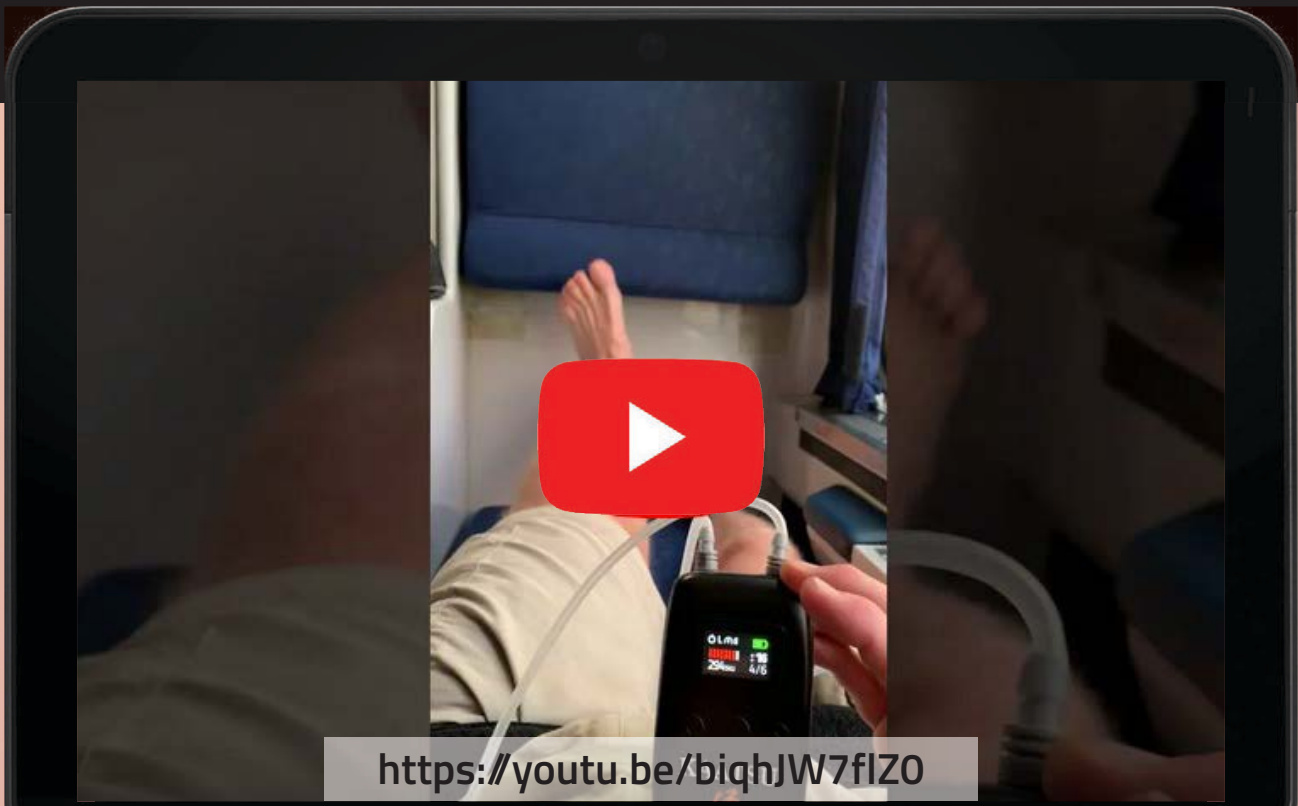


To follow Hope and her teammates, visit [here](#) and [@ihope38](#) on Instagram, and [here](#) on Twitter. Before the pandemic, Hope was one of three USA Women's Eagles who made the Dream Teams for #SuperSeries2019.



# KAATSU USE DURING LONG-DISTANCE TRAVEL

For who? Baby Boomers, retirees, competitive athletes, vacationers  
For what? Stress relief, recovery, jet lag, insomnia,  
functional movement, mobility



The applications of KAATSU Cycles while sitting or relaxing in bullet trains in Japan, on overnight travel on an AmTrak train or a Greyhound bus in the United States, or during intercontinental travel in Europe are numerous, effective and efficient.



Use any KAATSU model with appropriately sized KAATSU Air Bands: the old-school KAATSU Nano, the current KAATSU Cycle 2.0, or the next-generation KAATSU C3 or KAATSU B1. You can use during ground - or air or marine - transportation; the longer the travel, the most beneficial KAATSU becomes.

Recommended protocols for optimal benefits:

- Be well hydrated before and during KAATSU Cycles.
- Start off in lowest SKU pressure setting.
- Sit or relax comfortably while doing KAATSU Cycles.
- Gently and repeatedly do simple exercises or movements.
- Continue with lowest SKU pressure setting - or gradually and slowly increase the pressure as you see fit.
- Enjoy the view, watch movies, read books or talk with friends and family while enjoying KAATSU the Original BFR.





# KAATSU FOR SPACE COLONIZATION, APPLICATIONS BY SPACEX, BLUE ORIGIN



For who?  
Astronauts

For what?  
Sarcopenia, muscle maintenance, muscle atrophy, bone maintenance, bone degeneration (osteoarthritis)

**I**n various research studies, KAATSU has been found to help prevent muscle atrophy during space flight (e.g., [Hemodynamic responses to simulated weightlessness of 24-h head-down bed rest and KAATSU blood flow restriction](#)).

Fundamentally, these research results indicate that KAATSU can stimulate a gravity-like stress during weightlessness, which can replicate the physiological outcome of standing back on earth. KAATSU reproduces the effects on the heart rate, stroke

volume, norepinephrine, vasopressin, and plasma renin activity. while stimulating a gravity-like stress during weightlessness. Fundamentally, these research results indicate that KAATSU reproduces the effects of standing on heart rate, stroke volume, norepinephrine, vasopressin, plasma renin activity.

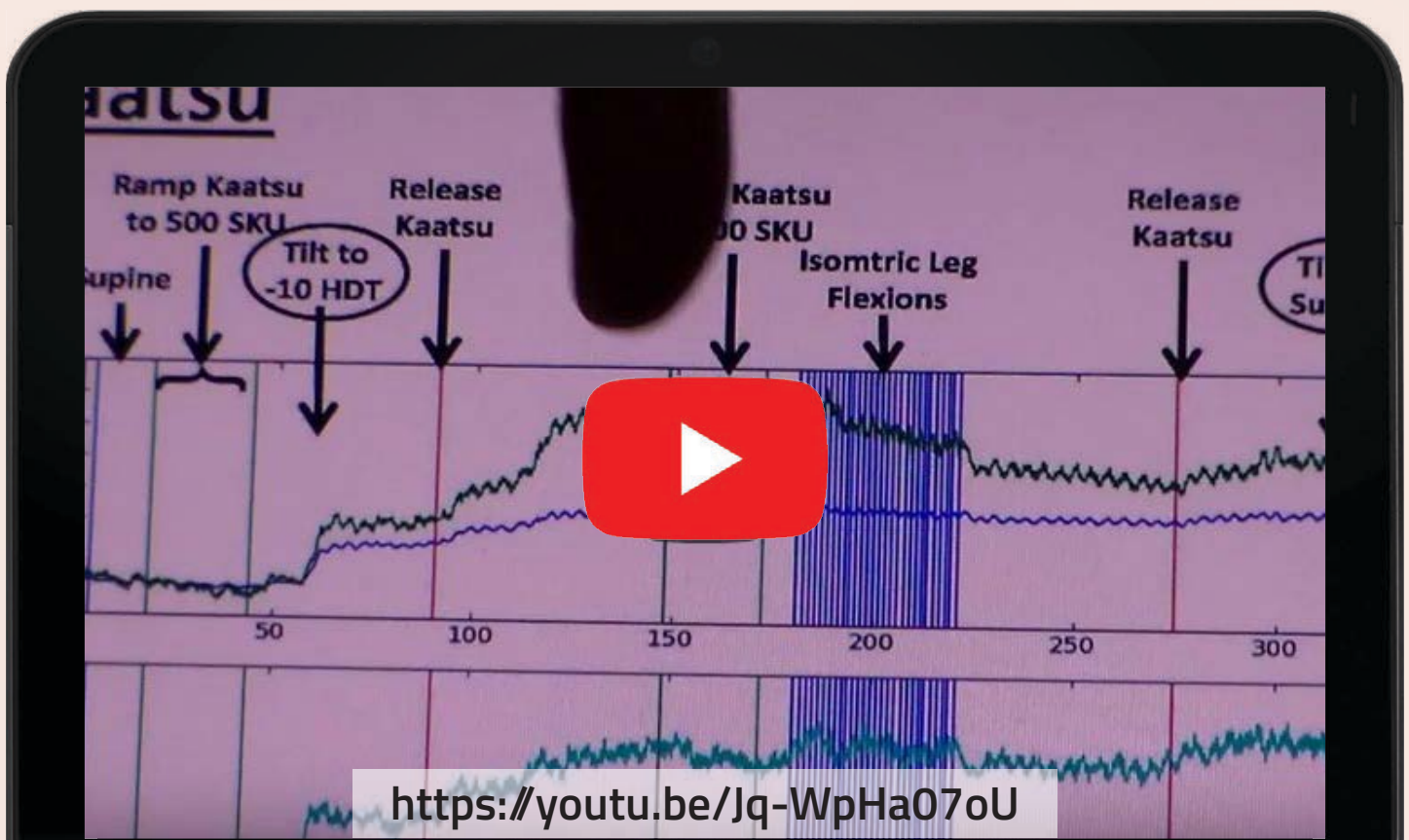
So not only can muscle mass be maintained in space flight, but also the blood circulation continues as it normally does in the upright position while on Earth.

On a practical basis, use of KAATSU can help maintain the health and wellness of astronauts, but the short and efficient KAATSU sessions can also enable more research time for experiments and important research.

Muscle mass and bone density are normally decreased in space. But to prevent this, astronauts exercise on fixed equipment in the International Space Station at least six times per week for hours. In order to decrease the exercise time and increase the scientific work time in an effective,

low-cost manner, the Japan Manned Space Systems Corporation worked with Dr. Sato and his KAATSU scientific collaborators to produce prototype KAATSU space equipment in 2006.

*“But now with Elon Musk with [SpaceX](#) and Jeff Bezos with [Blue Origin](#) exploring and moving quickly to expand colonies and civilization to other planets, the issue of muscle mass and bone density maintenance becomes even more important,” says Steven Munatones. “Now KAATSU is not only a reasonable solution for human health for space*





travel, but also what happens to the human body during short- or long-term colonization on planets with significantly less gravitational pull like the moon and Mars? This is where the application of KAATSU is an extremely low-cost, highly effective, highly efficient, portable, extremely small-scale solution to the human physiological issues of space travel and space colonization."

[Dr. Gary E. Strangman](#) of the Massachusetts General Hospital and Harvard Medical School, and his colleagues Doctors Vladimir Ivkovic, [Quan Zhang](#), Aaron Baggish, Adam Cohen, Brian Nahed, Aaron Dentinger, Eric Bershad, and Eric Rosenthal looked into testing KAATSU equipment for its potential to reduce elevated intracranial pressure (ICP) in astronauts and those in zero gravity conditions.

In their report, Dr. Strangman notes, "In a handful of astronauts, elevated ICP has been found days or months post-flight (measured by lumbar puncture). This visual impairment and

## Testing Mechanical Countermeasures to Cephalad Fluid Shifts

Vladimir Ivkovic<sup>1</sup>, Quan Zhang<sup>1,3</sup>, Aaron Baggish<sup>1</sup>, Adam Cohen<sup>1</sup>, Brian Nahed<sup>1</sup>, Aaron Dentinger<sup>2</sup>, Eric Bershad<sup>3</sup>, Eric Rosenthal<sup>3</sup>, Gary E. Strangman<sup>1,3</sup>

<sup>1</sup> Massachusetts General Hospital, Harvard Medical School, Boston, MA; <sup>2</sup> GE Global Research, Niskayuna, NY; <sup>3</sup> Center for Space Medicine, Baylor College of Medicine, Houston, TX

### INTRODUCTION

Over the past several years, clinical observations by NASA have revealed evidence suggesting intracranial pressure (ICP) is elevated in astronauts. Visual signs predominate, including globe flattening, disc edema, and choroidal folds. In a few cases, clinically relevant visual symptoms have persisted over 2 years, and in a handful of astronauts elevated ICP has been found days or months post-flight (measured by lumbar puncture). This visual impairment and intracranial pressure (VIP) condition varies notably across astronauts. Contributing factors are poorly understood, but globe flattening, plus few if any changes in IOP, suggest ICP elevation. While the evidence for elevated ICP remains circumstantial and the etiology remains unknown, the VIP risk is of sufficiently high priority—and the circumstantial evidence is sufficiently strong—that investigations of countermeasures for elevated ICP appear warranted. To date, no countermeasures have been tested for VIP, although two countermeasures have been utilized in spaceflight to mitigate in-flight cephalad fluid shifts (and related cardiovascular changes): (1) Russian-made Braslet thigh cuffs, and (2) lower-body negative pressure (LBNP). Both help redistribute blood from the upper body into the lower extremities, for a more Earth-equivalent fluid distribution. Both have operational challenges, including availability, obtrusiveness, and calibration.

### MAIN PROJECT AIMS

1. Identify and characterize cerebrovascular and/or ophthalmological parameters altered by cephalad fluid shifts. Determine whether these effects can be mitigated by either of two mechanical countermeasures (CMs).
2. Identify any rebound/adverse events following CM discontinuation, and determine if gradual CM discontinuation is safer than abrupt discontinuation.
3. Assess the relationship between CM exposure time vs. ICP reduction (and associated rebound effects).

### SUPPORT


Supported by the NSBRI DMMT04201 through NASA. Cooperative Agreement NCC 9-58.

### METHODS

We are adapting and investigating 2 commercially-available systems for their potential to reduce elevated ICP. These include (1) the Kaatsu System, and (2) the LymphaPress system.


#### Kaatsu

- Inflatable cuffs worn around legs or arms
- Similar to Braslet
- Designed for hypoxic strength training
- We are developing protocols for leg cuff use as a more finely controllable Braslet-type device.



#### LymphaPress

- Air bladders compress fluids from distal legs towards the abdomen.
- Designed for patients with lymphedema.
- We are modifying the system & deployment protocol to compress fluids towards the distal legs.



### INITIAL PROGRESS

Pilot testing with modified devices & protocols has identified consistent mitigation of ↑CBV with both systems.

#### Kaatsu

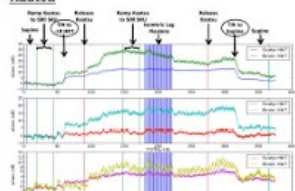


Figure 1: CBV (total Hb) increased with HDT, even with Kaatsu inflated. The increase was enhanced when Kaatsu was released. No inflation during HDT had little effect, but subsequent mild exercise reduced CBV. Release of Kaatsu again increased CBV. Return to supine brought CBV towards baseline.

#### LymphaPress

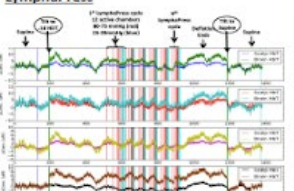


Figure 2: CBV (total Hb) again increased with HDT (while wearing un-inflated LymphaPress). Periodic inflation cycles led to temporary decreases in HbT. During deflation of the LymphaPress, HbT returned to the increased HDT level. Return to supine posture brought CBV back to baseline.

### PLANNED TESTING PROTOCOL

Subjects: (1) NeuroICU patients with invasive ICP sensor, (2) Healthy subjects undergoing acute -10° HDT

Protocols: (1) 15-min tests for feasibility and initial efficacy, (2) gradual vs. more abrupt discontinuation, and (3) evaluate duration-of-application effects.

Measures: invasive ICP, Vitrated ICP, NIRS (CBV & Hb), tissue oximetry, BP, TCD, 3D ocular US, IOP, ICV.

### DISCUSSION

- Device and protocol adaptation has been more challenging and time-consuming than anticipated.
- Pilot data suggests Kaatsu & LymphaPress both have potential to alter cephalad fluids. Effects on ICP will be determined in the patient studies.
- Both Kaatsu & LymphaPress exhibit post-release physiological changes. These need to be characterized.

intracranial pressure (VIIP) condition varies notably across astronauts.

To date, no countermeasures have been tested for VIIP, although two countermeasures have been utilized in spaceflight to mitigate in-flight cephalad fluid shifts (and related cardiovascular changes): (1) Russian-made Braslet thigh cuffs, and (2) lower-body negative pressure (LBNP). Both help redistribute blood from the upper body into the lower extremities, for a more Earth-equivalent fluid distribution.

Both have operational challenges, including availability, obtrusiveness, and calibration."

So they studied and tested KAATSU the original BFR, the first in space.

His explanation is posted above.

In Japan at the University of Tokyo Hospital, its cardiologists also studied blood flow in the brain with subjects doing KAATSU and documented the resultant improved blood flow in the brain when subjects were tested with MRI scanners.

# WORLD-CLASS SPEED AND STRENGTH WITH KAATSU

For who? Bobsledders, competitive athletes, Olympic athletes, professional athletes  
 For what? Strength, speed, functional movement, mobility, flexibility, technical movements, technique



[Robert Heiduk](#) [shown on left] is a German sports scientist and the author of KAATSU - The Pressure Training From Japan. He is also a highly sought-after consultant for Google and PPG Industries, and many world-class athletes from powerlifters to bobsledders. Sprinters, middle-distance athletes, and distance specialists train differently, have different bodies, workout plans, and mindsets. This is true in running, swimming, cycling, speed skating and many different types of winter sports.

But, as Heiduk teaches, all athletes can effectively and efficiently use the 3 basic applications of KAATSU the original BFR:

- \*Level 1: KAATSU Cycle
- \*Level 2: KAATSU Performance
- \*Level 3: KAATSU Recovery



### Level 1: KAATSU Cycle:

The KAATSU Cycle is a convenient, easy-to-use, automatic mode that requires no physical movement. It can be done anywhere (e.g., office cubicles, airplane seats, sofas at home, desks at school) anytime (e.g., before or after workouts), on the arms and separately on the legs. Before a workout, physical movement like stretching or an easy jog or calisthenics in the KAATSU Cycle mode is a great warm-up.

During the KAATSU Cycle mode, the KAATSU Air Bands remain connected to the KAATSU equipment (KAATSU Master 2.0, KAATSU Nano, KAATSU Cycle 2.0, KAATSU C3 or KAATSU B1 units) and automatically inflates and deflates to pressures between 0 - 500 SKU.

It is standard KAATSU protocol that athletes start with low pressures on their first KAATSU Cycle set (e.g., Group Low on the KAATSU Cycle 2.0 or Level 1 on the KAATSU Master or 100 SKU on the KAATSU Nano). The second and subsequent sets can be gradually increased to higher pressures (e.g., Group Medium and Group High on the KAATSU Cycle 2.0 or Level 2-5 on the KAATSU Master or 150-400 SKU on the KAATSU Nano).

The KAATSU Cycle mode helps increase the vascular tissue elasticity and prepare the athlete for a vigorous workout or competition.



### Level 2: KAATSU Performance

The KAATSU Constant mode is ideal for any kind of athletic performance. After inflating the KAATSU Air Bands to the athlete's optimal SKU pressure, the bands are untethered (disconnected) from the KAATSU equipment so athletes can work on their starts or anything else from swings of a golf club to turns in a pool, especially after 3-6 KAATSU Cycle sets have been completed.

KAATSU Performance is the most intense form of vigorous exercise and is highly aerobic. Athletes should always remain well hydrated before and during KAATSU - and should always monitor their CRT (Capillary Refill Time) and should immediately take off the bands if they feel lightheaded or uncomfortable.

Athletes can combine specific distances or durations (or sets or drills) with pace, interval and pressure or KAATSU DPIIP.

### KAATSU DPIIP

DPIIP = Distance (or Duration) + Pace + Interval + Pressure  
KAATSU Air Bands are inflated so athletes can achieve a certain pace in specific intervals over a set distance or duration.

For example, a runner can run 8x400m at 2-minute intervals at a 1-minute pace with the KAATSU bands set at 100 SKU. Swimmers can swim 8x100m at 1:45 at a 1:20 pace with the KAATSU bands set at 100 SKU.

Once this initial KAATSU DPIIP set can be repeatedly achieved at 100 SKU (keeping the distance, pace and interval constant), the runners and swimmers can then increase their SKU pressure to 110 SKU. After the second set at 110 SKU can be repeatedly achieved (keeping everything constant), the runners and swimmers can then increase their SKU pressure to 120 SKU. They can continue to increase the pressure - or alternatively, increase their distance (or duration) or pace, or decrease their interval.

The SKU pressures used during the KAATSU 3-point Exercises are dependent upon the appropriate Base SKU and Optimal SKU pressures.





### Level 3: KAATSU Recovery

After a hard strength-training session, a vigorous workout, or a competition, athletes can use the KAATSU Cycle mode to efficiently flush out lactate from their major muscle groups, enabling them to recover well in time for their next workout or competitive event.

The KAATSU Cycle mode is convenient and easy-to-use for post-workout recovery. The athletes can just sit and apply the KAATSU Air Bands to their arms and then their legs - or vice versa.

To recover from a workout or a competition, some athletes prefer to do repeated KAATSU Cycle



sets with the same SKU pressure. Alternatively, other athletes prefer to start with a higher pressure and then decrease their pressure on subsequent sets. Some athletes prefer to do the opposite; they start with lower pressures and then increase their pressure on subsequent sets. It all depends on what the athletes prefer.

Athletes start with lower pressures on the first Cycle (e.g., Group Low



on the KAATSU Cycle 2.0, Level 1 on the KAATSU Master, or 100 SKU on the KAATSU Nano). Subsequent sets are set to higher pressures (e.g., Group Medium and Group High on KAATSU Cycle 2.0, Levels 2-5 on KAATSU Master, or 150-400 SKU on KAATSU Nano).

IBSF WORLD CHAMPIONSHIPS  
**BOB · SKELETON**  
ALTENBERG 2021  
presented by IDEAL Versicherung

**ALTENBERG HIGHLIGHTS**  
HEAT 3-4

<https://youtu.be/9TyxVwSMmUw>

# Improving Powerlifting Recovery and Results with KAATSU



For who? Competitive athletes, powerlifters,  
bodybuilders, football players, sumo wrestlers  
For what? Strength, functional movement, mobility, flexibility,  
warm-up, recovery

[Giancarlo Mavrici](#) and [Emma Bollinger](#) quickly realized the benefits of KAATSU - and all its different applications.

The 22-year-old powerlifter from Germany and the 18-year-old American Olympic weightlifter from Florida are both emerging in their weight divisions in the sport of competitive powerlifting.

[Mavrici](#), a 94 kg powerlifter, set a new German national junior deadlift

record when he lifted 307.5 kg. Five months later in March 2016, Mavrici increased his deadlift performance to 320 kg while shedding 2 kg of body weight. During the same period, he also improved his squat best from 275 kg to 300 kg. His improvement was credited to his use of KAATSU. He explains [here](#).

His key to success?  
Mavrici uses a [KAATSU Nano](#) to recover from his strenuous competitions. "After





**KAATSU leads to high levels of muscle activation. It's very good at inducing hypertrophy with potential in many different settings ranging from rehabilitation and regular exercise to sport specific training."**

*a deloading period with KAATSU Training, he comes back more refreshed and stronger because KAATSU does not create muscle damage,"* explained KAATSU Master Specialist [Robert Heiduk](#) who authored the book [KAATSU - The Pressure Training From Japan: New Perspectives in sport, therapy and health promotion](#). "KAATSU leads to high levels of muscle activation. It's very good at inducing hypertrophy with potential in many different settings ranging from rehabilitation and regular exercise to sport specific training."

[Bollinger](#) is similarly rapidly moving up the ranks in her USA Weightlifting class where she is currently ranked #4 in the USA in the 55 kg weight class.

Her key to success?

Her father Rob, "Emma feels lucky to use the KAATSU and really can tell a difference in her readiness for competition lifts. When she goes to college this summer, she will take our unit because KAATSU is now a staple in her competition prep. Emma has found that using the KAATSU Cycle 2.0 KAATSU in concert with a [Therabody Theragun Pro](#) are very effective tools pre- post-workout and competition.

*Employing a Therabody Theragun Pro, Emma spends about 20 minutes doing a complete pass over her body focusing on major muscle groups for 20-30 seconds. Then she employs the*



**Recovery is usually in the vehicle headed back home where Emma will employ the KAATSU Cycle 2.0 in the Cycle mode G1-G3 and P1-P3 on the drive.”**

*KAATSU Cycle 2.0 on the Cycle mode G1-G3 with the KAATSU Air Bands on her legs. Emma begins with active stretching and then will repeat Cycles on the G2 and G3 levels while moving an empty 15 kg barbell through the patterns of movement that align with the Clean &*

*Jerk as well as the Snatch. During Admin time and while waiting on deck to lift, Emma uses the KAATSU Air Bands on her arms on Cycle levels G1 & G2.”*

*Emma stretching with her KAATSU Air Bands on her legs, pre-competition. Emmy starting her post-competition KAATSU Cycles with the KAATSU Air Bands on her legs.*

*Rob sums up his daughter’s post-competition protocol, “Recovery is usually in the vehicle headed back home where Emma will employ the KAATSU Cycle 2.0 in the Cycle mode G1-G3 and P1-P3 on the drive.”*

*“Athletes like Giancarlo and Emma can use their KAATSU devices in so many*



*different ways,” says Steven Munatones. “During training, they can literally begin their warm-up soon after they wake up. While getting ready for school or a morning workout, they can throw on their KAATSU Air Bands and do Cycles at low, conservative pressures while they are brushing their teeth or getting their gear ready - even before they leave their home.*

*Then, during their actual workouts, they can work on their technique, either without weights or very little weight, with the KAATSU in the Constant mode. As they improve, they can still use the light weights, but start increasing the KAATSU Constant pressure levels. Then, of course, they use the KAATSU Cycle mode for recovery post-workouts - and then again, within an hour of going to bed in order to help prepare their bodies for high-quality sleep. In their heavy training periods, this evening/sleep recovery is essential.”*

To follow [Giancarlo Mavrici](#), visit [here](#) and to visit [Emma Bollinger](#), visit [here](#).

Note: Athletes like Mavrici who are powerlifters compete in the squat, bench press, and deadlift to see who can lift as much weight as possible for 1 repetition. Powerlifters have three attempts to reach their maximum weight and are ranked in body-weight and age categories. The winner is determined by who has the highest powerlifting total.

Athletes like Bollinger who are Olympic weightlifters attempt a maximum-weight single lift in the snatch and the clean and jerk. The snatch is a wide-grip, one-move lift. The clean and jerk is a close-grip, two-move lift. Each weightlifter receives three attempts in each, and the combined total of the highest two successful lifts determines the overall result within a bodyweight category.



# Gout Testimonials After KAATSU Cycles



For who? Individuals with gout, individual with varicose veins  
For what? Gout, pain relief, functional movement, mobility, balance

**5** 8-year-old John Shipman from Southern California has gout. He explains, "I take a medication for it daily, and have a medicine in case a flare-up occurs called colchicine that usually knocks out the gout once I feel it coming on. This time though, I have a different brand of culture since it didn't work so I experienced a really intense painful bout of gout."

His sons, who are competitive water polo players and avid KAATSU Nano users, suggested John at least try KAATSU for some kind of relief.

"So I tried KAATSU," he recalls. "I couldn't walk. But, hh my God, right after KAATSU, I was able to walk. It actually felt good as I was trying to move my foot around. It loosened up after three KAATSU Cycles with very little movement. This is amazing."

*I am not sure how I'm gonna feel in four hours or tomorrow morning, but right now I feel like I can actually walk and it feels good in my ankle joint on my left foot. It was so painful that even the slightest fabric rub or touch was almost a 9 on a 10 scale. I was just happy that I could get some sleep tonight. So glad we have the KAATSU machine."*

The next report came shortly thereafter, "It's interesting with gout. The movement with the KAATSU bands on helps circulate the blood. Previously, any movement caused intense pain so much that you don't want to live, thus little circulation. With KAATSU, you don't have to move too much (and with little pain) to get the benefit and results of increased circulation from the movement. It seems to

*work and I was able to move relatively well after the first KAATSU Cycle with very little pain. In fact, it felt like the comfort you get from a stretch or scratching an itch to be able to move during the second and third KAATSU Cycles."*

The next day, John reported again, "It's quite amazing. Literally the feeling was like a 9 on the pain scale before KAATSU. It dropped down to a 5 during the first KAATSU Cycle, then a 2 during KAATSU Cycles #2 and #3. This was counter-balanced by a euphoric feeling from mobility in the ankle at a 3 or 4 in any euphoria scales. So while the pain was still there, the range of motion and euphoric feeling overtook any slight pain and made me want to walk during Cycles #2 and #3. This morning, the pain was elevated but much less, like a 6. Amazing really."



# KAATSU INTEGRATION IN THE LIFE OF MICHAEL ANDREW



**Shortens  
Post-Exercise  
Recovery Time**

**Enhances  
Pre-Race  
Preparation**

**Improves  
Athletic  
Performance**

**Reduces Injury  
Rehabilitation  
Time**

# PLAY ON WITH KAATSU - HOW TO GET BETTER WITH AGE

For who? Competitive athletes, recreational athletes,  
masters athletes, weekend warriors, tactical athletes, Baby Boomers  
For what? Strength, speed, stamina, functional movement,  
mobility, flexibility, recovery



*“Those pins and needles you’re feeling are literally new capillaries being formed,”* Jeff Bercovici heard when he first tried the original KAATSU Nano in Huntington Beach, California. The author of [Play On: The New Science of Elite Performance at Any Age](#) (or [Play On - How To Get Better With Age](#) or [アスリートは歳を取るほど強くなる](#) in Japanese) was visiting the first KAATSU Studio outside of Japan.



Bercovici continued to listen to the KAATSU Master Specialist as the pink KAATSU Air Bands repeatedly inflated and deflated in regular intervals. He was told, *“What we’re doing now is a form of warm-up. We’re putting pressure on the vascular walls, then releasing it. Putting pressure on the vascular walls, then releasing it. We’re warming you up from the inside out.”*

After a series of hand clenches that got to be difficult, Bercovici then began a series of biceps curls without any weights. He recalled, *“It’s been years since I’ve curled heavy dumbbells. After 15 of these weighless curls, my arms feel fatigued in a way I remember from back then.”*

His third set of exercises was triceps extensions. *“Still unweighted. This time, I don’t even make it to the second set. My arms are toast.”*

Bercovici is sold on KAATSU and the hardware that standardizes its application for safety and effectiveness. *“KAATSU is one of a number of new technologies that seek to make athletic training more efficient and effective by separating the good kinds of training stimuli - the ones that promote desirable adaptation - from the kinds that cause fatigue, injury, and repetitive strain. Like cross-training, polarized training, and altitude training, these technologies hold particular promise for older athletes.”*

In Play On, Bercovici also recalled the experience of a KAATSU executive who was in Pearl Harbor, Hawaii demonstrating KAATSU to a group of 25 fitness trainers for the U.S. military’s Special Forces. *“Because*



commandos spend so much time deployed in the field, they typically prefer exercise programs that can be done anywhere, including absurd volumes of calisthenics. [Richard Herstone] was getting a strong vibe of skepticism from several jacked-up members of his audience, so he singled out the fittest-looking and most skeptical trainer and asked about his fitness regimen. The man replied: a 10-mile run and 1-mile swim, followed by 150 pull-ups and between 1,000 and 2,000 push-ups, depending on the day. Herstone invited the man to put the bands on and demonstrate his push-up prowess.

'He got to 36,' he recalls. 'He couldn't get off the ground, and these 24 other guys are giving him crap. I

could see this look of [being] pissed. He won't look at me. So he takes off the bands, walks away, and then he comes back and says, 'You realize you just saved me an hour to an hour and a half a day?'"

Bercovici knows there is a miracle drug that increases life span, boosts immune function, releases good hormones and suppresses bad ones, improves sleep, and speeds up metabolism. "It's called exercise, and it...pretty much just builds muscle."

Referring to KAATSU, Bercovici now knows that physiologically exercise doesn't have to involve exercise. At least not with KAATSU which is exercising one's body from the inside out.

For more information or to order the book Play On - How To Get Better With Age, visit [here](#).





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World Champion  
Swimmer

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SHORTENS POST-EXERCISE RECOVERY TIME  
IMPROVES ATHLETIC PERFORMANCE

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# Rob Bollinger Pushing The Envelope Of Excellence

For who? Tactical athlete, Green Beret, military,  
Special Operations  
For what? KAATSU Specialist

Retired Colonel Rob Bollinger is a 24-year veteran Army Special Forces officer with nine years of command experience leading diverse organizations in both peacetime as well as during combat tours after 9/11.

The Green Beret was consistently recognized as a Top 5% executive in a highly competitive field of special operations officers. Over the course of his career, he was acknowledged for success in leadership, project management, policy development, and fiscal consulting.

His management experience derives from leading diverse organizations from

12–1000 employees in the most complex and volatile environments imaginable.

Post-retirement, Bollinger continues to push the envelope of excellence and care of those around him. He is currently a Board member for [Combat Veterans to Careers](#) [see [here](#)] and is responsible for recreational rehabilitation opportunities.

Tirelessly, he also simultaneously serves as a Board Member for [Tecton](#) where he is responsible for program effectiveness and operational system efficiency.

John Doolittle recalls Bollinger's introduction to KAATSU,



Rob was introduced to KAATSU after rehabilitating his injuries associated with his combat service. He was one of the first advocates for the use of KAATSU for rapid rehabilitation at U.S. Special Operations Command (USSOCOM) headquarters in Tampa, Florida.”



# KEVIN EDGERTON

## EXCEEDING EXPECTATIONS OF HIMSELF AND OTHERS

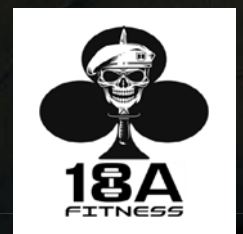
For who? Tactical athlete, KAATSU Specialist, Special Operator, Special Forces

For what? Strength & conditioning, KAATSU Specialist

**A**s long as Kevin Edgerton can remember, he has always mentally and physically challenged himself.

The Colorado resident is a retired Special Forces Detachment Commander and Special Forces Communication Sergeant who served over 26 years in the U.S. Army.

He currently works for the U.S. Air Force at Lackland Air Force Base, Special Warfare Human Performance Squadron as the Head Strength and Conditioning Coach. He leads the squadron providing cutting-edge fitness protocols, including the application of KAATSU, for future and hopeful Pararescue, Combat Control, Tactical Air Control Party, and Special Reconnaissance personnel.



Training for his life's calling as both a Special Forces Operator and Strength and Conditional Coach began with sports.

At the age of five, he went all-out in his athletic pursuits in baseball, football, wrestling, and soccer. "Virtually any athletic activity I could get my hands on. When I joined the U.S. Army, it was no different. I set the highest expectations for my time there and was determined to exceed them. My first goal was to become a U.S. Army Special Forces Soldier, also known as a Green Beret, then become an Officer and leader in the same organization.

His goals were admittedly exceeded. "Within decades of investing in my ambitions, I was awarded my dream and positions far greater and more fulfilling than I could have hoped for. In 1998, I began earning credentials in the fitness industry, obtained my Personal Trainer Certification, and later developed a CrossFit Program for

the 10th Special Forces Group. Later, programs were built for 1st Special Forces Group in Okinawa, Japan. My athletes went on to win the Asian CrossFit Games."

Upon retirement as a Special Forces Officer, his passion for training continued to burn brightly. Edgerton is a Certified Strength and Conditioning Specialist, Olympic Weight Lifting Coach, Power Lifting Coach, and a range of other critical technical skills. He completed a Masters in Health & Sport's Science and accepted an opportunity as the Head Strength & Conditioning Coach for the Special Warfare Human Performance Squadron. "Within this position, I have had a direct role in training personnel before, during, and after selection and qualification training supporting their goal to become Air Force Special Operators in the fields of Pararescue, Combat Control, Tactical Air Control Party, and Special Reconnaissance.

He is also concurrently an owner of [18A Fitness](#) where he develops future warriors.

At 18A Fitness, warriors are made... patiently, passionately, painstakingly and professionally.

"As the go-to organization for Green Berets, Army Rangers, and Special Warfare Airmen in their pursuit of peak physical and mental performance, we are as good as it gets," he explains.

"Armed with the immense, real-world experience where I incorporate proper mobility, breathing, heart rate variability, strength, stamina, cardiovascular, and mental training, our services exceed the capabilities of the average gym or personal training service.

We prepare men and women to endure the rigors of Special Operations training, or other high-performance environments, with detailed, focused, all-inclusive plans that can't be found anywhere else."

For more information on [18A Fitness](#) and retired Special Forces Captain Kevin Edgerton who is a KAATSU Ambassador, visit [here](#).



# KAATSU CYCLE 2.0

## BENEFITS



## KAATSU is the ultimate bio hack for health, rehabilitation and recovery.

Invented in 1966 by Dr. Yoshiaki Sato of Tokyo, Japan, and protected by 47 patents, KAATSU next-generation equipment and protocols have a unique and unprecedented safety track record with over 20 million individual KAATSU sessions in 48 countries around the globe.

Backed by over 50 years of expertise, KAATSU Global is excited to introduce the latest advancement in health and wellness, the KAATSU Cycle 2.0.

Fitting in the palm of your hand or in your pocket, the KAATSU Cycle 2.0 is the most advanced, most portable, easiest-to-use compression device in the world. In combination with a precise algorithm-controlled limb pressure, KAATSU's narrow, elastic bands yield to muscle contractions, providing safe and effective exercise and rehabilitation for users of all ages and from all walks of life, from Olympic champions to disabled individuals.

KAATSU users have a full range of motion providing complete control and the opportunity for a wide variety of movements and training.

*From elite athletes and soldiers to aging Baby Boomers and busy executives, KAATSU Cycle 2.0 is the next-generation training and rehabilitation device used around the world.*

**KAATSU  
IS USED BY**



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# HALLI BALLI, SILK AERIALIST - HULA HOOPER - FIRE DANCER, WITH KAATSU

For who? Competitive athletes, acrobats,  
dancers, extreme athletes, climbers, martial artists  
For what? Strength, functional movement, mobility, flexibility,  
warm-up, recover



Halli Balli is an aerialist and fire dancer who grew up in Hawaii and is currently working in Colorado. She worked out with her pink KAATSU Air Bands and the KAATSU Cycle and KAATSU Constant modes on the original KAATSU Nano device.

Her creativity, passion and energy is showcased in her visual entertainment productions - and her KAATSU workouts with her pink KAATSU Air Bands were absolutely grueling.

For more information on Balli, visit [RAW Artists](#), an international, independent arts organization in 70 cities worldwide focused on aiding independent artists - like Balli - in their creative careers.



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IMPROVES ATHLETIC PERFORMANCE

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# KAATSU RECOVERY FOR AQUATICS



**K**AATSU training and KAATSU protocols have been a game-changer in progress and the performance of my athletes, but the RECOVERY results have been simply mind-blowing! To the point of playful fighting between the aquatic athletes I work with regarding who gets to use the KAATSU equipment first!

Here are some simple guidelines that I follow PRE and more importantly POST workouts and competitions for Swimming, Water Polo, Masters Swimming and Open Water Swimming:

## SWIMMING

- I have noticed a significant rise among athletes and coaches at swim meets and post workout regarding the importance of recovery. I have

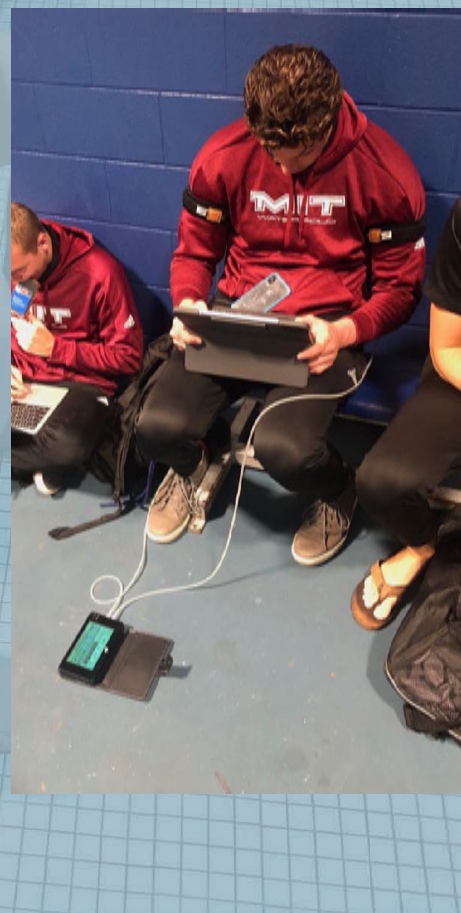
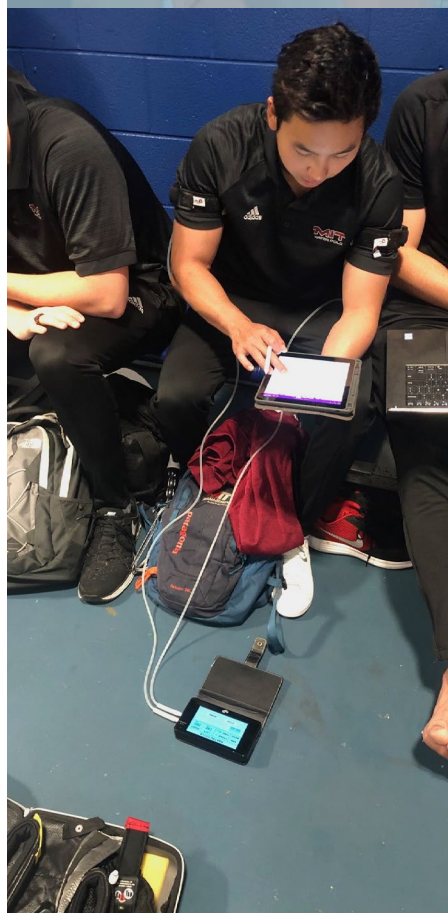
discussed with many of these coaches and swimmers about ice baths, hydration, stretching and more importantly about KAATSU. It is clear to me with the results of my own athletes, that the use of the KAATSU Cycle and the appropriate protocols, this is the most efficient form of recovery!

- There are several different protocols that I recommend based upon the following:
  - » Experience with KAATSU equipment
  - » Amount of time to recover (limited time between events or end of day?)
  - » Conditions to be comfortable (standing, sitting or lying down)
  - » Swim Events (Sprint, middle distance or distance)
  - » Arms or Legs or Both (independently)
- Most importantly I have determined that with just 3-5 minutes of using KAATSU cycle, the physiological recovery is unprecedented.



## WATER POLO

- Working with the MIT Men's Water Polo team is already a cerebral challenge because most of these young men ARE future scientists and incredible thinkers...so selling the use of KAATSU for recovery takes a real "sell". However, because of their ability to understand complex physiology and what I call "4-diemnsioal" recovery, the buy-in has always been very easy!
- The great thing about water polo pliers, is at a tournament they are aware of sometimes long waits between matches and some quick turnarounds. With this group of men, they often study between matches and now can recover as well! (see photo)
- Another great thing regarding polo players is swimmers who might have an injury that does not permit them to play...they can join their team from the sidelines while recovering. (see photo).





## MASTERS SWIMMING and OPEN WATER

- Much like with age-group and national level swimmers, masters swimmers can really take advantage of using KAATSU for recovery! What I have incorporated into my masters athletes is the use of KAATSU for immediate use pre and post workout!!
- With simple cycles right before a workout, some of the “aches and pains” that come with age are significantly reduced! Also, cycles after practice increase flexibility and can be complemented with stretching.
- I feel that with my Open Water athletes, the amount of time to “warm-up” after a cold ocean swim is cut in half and triggers other benefits as well!



## WORLD RECORDS

- Even in the most extreme situations, KAATSU recovery can be the most important tool to help an athlete RECOVER after a mind-boggling event like a 24-hour continuous swim!
- After swimming 24-hours continuously in an endless pool, YUKO MATSUZAKI used KAATSU for recovery and injury prevention. (see photo)





# Available April 2021

# KAATSU CYCLE 2.0



## DO

- » Correctly place the KAATSU Air Bands on your upper arms and upper legs every time.
  - ❁ Note : On your arms, the Bands should be placed above your biceps and triceps near your armpit, but below your deltoids.
- » Check Base SKU (pressure) and find Optimal SKU (pressure) during every KAATSU session. Optimal Pressure is one that is not so high as to occlude, but high enough to get that “KAATSU Fatigue/Failure Feeling” during exercise.
  - ❁ Note: Your Optimal SKU can change on a daily basis.
- » Release the KAATSU Air Bands if you feel something is not right. If you feel lightheaded or if you have any pain on one side or the other, stop and continue on another day.
- » You can do different exercises or movements during KAATSU. You can type emails or play the piano or play computer games. Be creative and enjoy the experience.
- » Rest 30-60 seconds between different sets of exercises.

## DON'T

- » Do not ever fully occlude blood flow. Signs of this are collapsed veins, no pulse at the wrist, pale palms and skin, severely delayed (>6 seconds) capillary refill.
- » In the untethered mode, do not have the air bands inflated for more than 20 minutes on your limbs
- » Do not lift heavy weights when doing KAATSU



# KAATSU CYCLE 2.0



Unit weighs 3.5 ounces and measures 3.6" x 2.25" x 1"

- > Exercise, recover and rehabilitate anywhere anytime
- > Offers KAATSU Cycle and KAATSU Training modes
- > Ultra compact, ultralight, durable
- > Utilizes precise, computer-controlled limb pressure on both arms, or both legs
- > The pneumatic elastic bands can be "untethered" from the KAATSU unit and are waterproof, for use in the pool
- > Utilizes original KAATSU know-how
- > US patent #9,775,619

## PACKAGE

- > Includes 4 KAATSU Air Bands (for arms + legs)
- > Rechargeable battery with USB-C charger

## RETAIL PRICE

- > \$899.<sup>95</sup> (1-yr warranty on device, 6 mo on bands)
- > \$979.<sup>95</sup> (2-yr warranty on device, 6 mo on bands)

## BENEFITS

- > Tone muscle without weights
- > Convenient: do anywhere, anytime
- > Offers access to KAATSU Performance Database
- > Offers 6 present KAATSU Cycle levels
- > Improves speed, stamina and strength
- > Incredible time saver
- > Improves circulation
- > Faster recovery
- > Enables greater range of motion
- > Reimbursable with various CPT codes
- > Offers customizable KAATSU Training pressures
- > Proven safe for users up to 104 years old

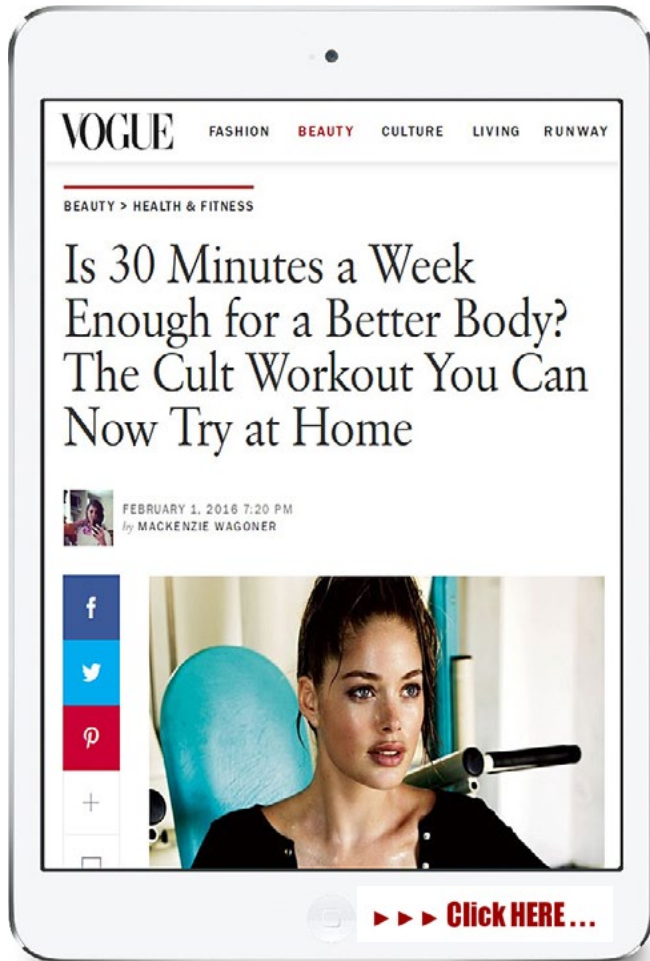
## ABOUT KAATSU

KAATSU is the world-leader in blood flow moderation training and therapy. Invented in 1966 by Dr. Yoshiaki Sato in Tokyo, Japan and protected by 47 patents, our equipment and protocols have an impressive and unprecedented safety track record with over 20 million individual KAATSU sessions in dozens of countries across the globe. From elite athletes, to baby boomers, and everyone in between, KAATSU is the ultimate biohack for health and rehabilitation.

LEGAL NOTICE—DISCLAIMER Warning: KAATSU Global, Inc. cannot diagnose diseases, prescribe drugs, or recommend treatments for specific disease conditions and does not dispense medical advice. Any views and ideas expressed are opinions only and not intended to be a substitute for conventional medical advice or service. You agree that no responsibility or liability will be incurred to any person or entity with respect to any loss, damage, or injury caused or alleged to be caused directly or indirectly by the information contained within this document. If you have a medical condition, please see a licensed healthcare practitioner.

# KAATSU In The News

KAATSU is has received recognition and coverage in prominent and prestigious publications.



## "Can You Work Out Less, Get More Results?"

By Eleanor Warnock and Rachel Bachman  
The Wall Street Journal



*With Kaatsu, people do a light workout while wearing pressurized belts, first on the upper arms and then on the legs.*

▶▶▶ [Click HERE...](#)

## "Could the Kaatsu Workout Be the Most Efficient Exercise?"

By WSJ Video  
The Wall Street Journal



*Japanese bodybuilder Yoshiaki Sato says he has a way for Hollywood's aging action stars to stay as youthful and fit as ever.*

▶▶▶ [Click HERE...](#)

# Outside

## "You Should Probably Try This Japanese Blood-Flow Routine"

By Devon Jackson, Staff Writer  
OutsideOnline.com



*Footballers of both kinds have caught on. Here's what you need to know.*

▶▶▶ [Click HERE...](#)

# MilitaryTimes

A TEGNA Company

## "Kaatsu training is blowing fitness researchers' minds"

By Jon R. Anderson, Staff Writer  
MilitaryTimes



*Read the article and discover why so many people are so excited about KAATSU Training.*

▶▶▶ [Click HERE...](#)

### Customer Service:

Call Toll-Free International +1-888-410-6350

e-mail: [info@kaatsu-usa.com](mailto:info@kaatsu-usa.com)



# NEXT-GENERATION KAATSU MASTER 2.0

AVAILABLE  
NOW



- ◆ **Designed for performance, recovery, rehabilitation and wellness applications**
- ◆ **Touch-screen tablet offers personalized KAATSU Cycle options**
- ◆ **Dual air compressors enable each limb to be simultaneously inflated to different pressures**
- ◆ **WIFI connectivity enables automatic storage of user data in the KAATSU Cloud**

[www.kaatsu-global.com](http://www.kaatsu-global.com)

**AVAILABLE  
NOW**

# NEXT-GENERATION KAATSU MASTER 2.0

www.kaatsu-global.com

The new **KAATSU Master 2.0** is the fourth-generation **KAATSU** device that enables **real-time monitoring and archiving of user's physiological data.** The **2.0** is ideal for use by **individuals, corporations, organizations, physical therapy clinics, universities, hospitals, and teams.**

2.0 is combined with the Masimo MightySat™ Finger Pulse Oximeter and a wrist blood pressure monitor that capture and archive your oxygen saturation, pulse rate, Perfusion Index, Pleth Variability Index and blood pressure readings in real-time.

## FEATURES

- Designed for performance, recovery, rehabilitation and wellness applications
- Touch-screen tablet offers personalized and comprehensive KAATSU Cycle options
- Dual air compressors enable each limb to be simultaneously inflated to different optimally pressures
- WIFI connectivity enables real-time monitoring and automatic storage of data in the KAATSU Cloud
- Video feedback and interaction with KAATSU Master Specialists for real-time consultation
- Access to KAATSU Cloud where user information is automatically uploaded and archived
- Rechargeable battery
- Used with both the KAATSU Air Bands or KAATSU Aqua Bands
- Band pressure up to 500 SKU (Standard KAATSU Units)
- Reimbursable with CPT codes

## BENEFITS

- effective muscle toning
- improved circulation
- faster recovery from competition or vigorous workouts
- anti-aging benefits
- improved speed
- enhanced stamina
- increased strength
- greater range of motion
- significant time savings
- convenience - exercise anywhere anytime
- offers 6 levels of the KAATSU Cycle

## PACKAGE

2.0 comes with 4 sets of KAATSU Air Bands or KAATSU Aqua Bands (Small, Medium, Large or Extra Large) and certification for KAATSU Specialists

## DATA MONITORING

Masimo MightySat™ Fingertrip Pulse Oximeter and a Wrist Blood Pressure Monitor measures and monitors the following data during exercise or rehabilitation:

- Pulse Rate (PR) or the number of heart pulses per minute indicates your overall fitness and exertion levels
- Oxygen Saturation (SpO2) or the oxygen level in the blood indicates changes due to your heart or lung function, oxygen use by your body, and altitude
- Perfusion Index (PI) indicates the strength of blood flow to the finger as blood circulation changes
- Respiration Rate (RRp) or the number of breaths per minute indicates how well your heart and lungs are functioning and how quickly you recover from exercise
- Pleth Variability Index (PVi) or the variation in perfusion index over your breathing cycle which may indicate changes in hydration, breathing effort, perfusion or other factors.
- Blood Pressure (BP) indicates your systolic blood pressure and diastolic blood pressure.

## 2.0 ALSO MEASURES AND ARCHIVES ADDITIONAL INFORMATION INCLUDING:

- KAATSU Time (KT) or the amount of time spent doing KAATSU per session
- Capillary Refill Time (CRT) or the amount of time in seconds that it takes for your capillaries to refill with blood
- KAATSU Exercise (KE) or the type of exercise, movement or rehabilitation you do with KAATSU
- KAATSU Cycle Function (KCF) or the specific type of KAATSU Cycle (e.g., Cycle 20 or Customized Cycle)

## BAND SIZES

KAATSU Air and Aqua Bands are available in 4 sizes: Small, Medium, Large and Extra Large. Measure the circumference of the top of your arm (right by your armpit) and the circumference of the top of your leg (right alongside your groin). Those circumferences will determine the appropriate size for your KAATSU Air Bands.

## ARMS

**Small:** less than 18 cm (7.06 inches)

**Medium:** 18 - 28 cm (7.06 - 11.02 inches)

**Large:** 28 - 38 cm (11.02 - 14.96 inches)

**Extra Large:** 38 - 48 cm (14.96 - 18.89 inches)

## LEGS

**Small:** less than 40 cm (15.74 inches)

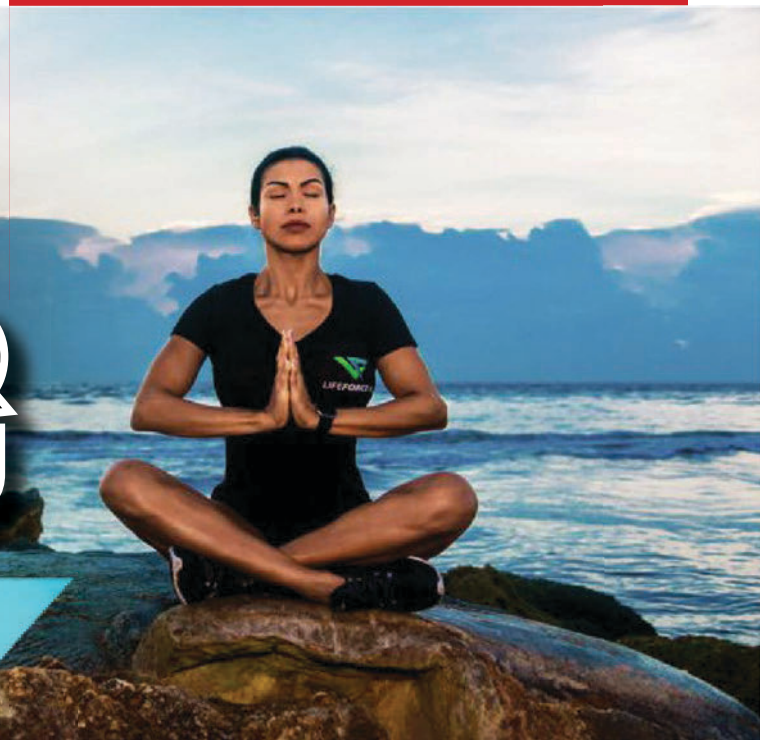
**Medium:** 40 - 50 cm (15.74 - 19.68 inches)

**Large:** 50 - 60 cm (19.68 - 23.62 inches)

**Extra Large:** 60 - 70 cm (23.62 - 27.55 inches)



# LIFEFORCE IQ PRESENTS KAATSU



"Our goal is to awaken human potential by sharing precise effective tools and methods to maximize the health, happiness and performance of people who want to realize their potential," explains David Weinstein of LIFEFORCE IQ and OASIS in Boca Raton, Florida.

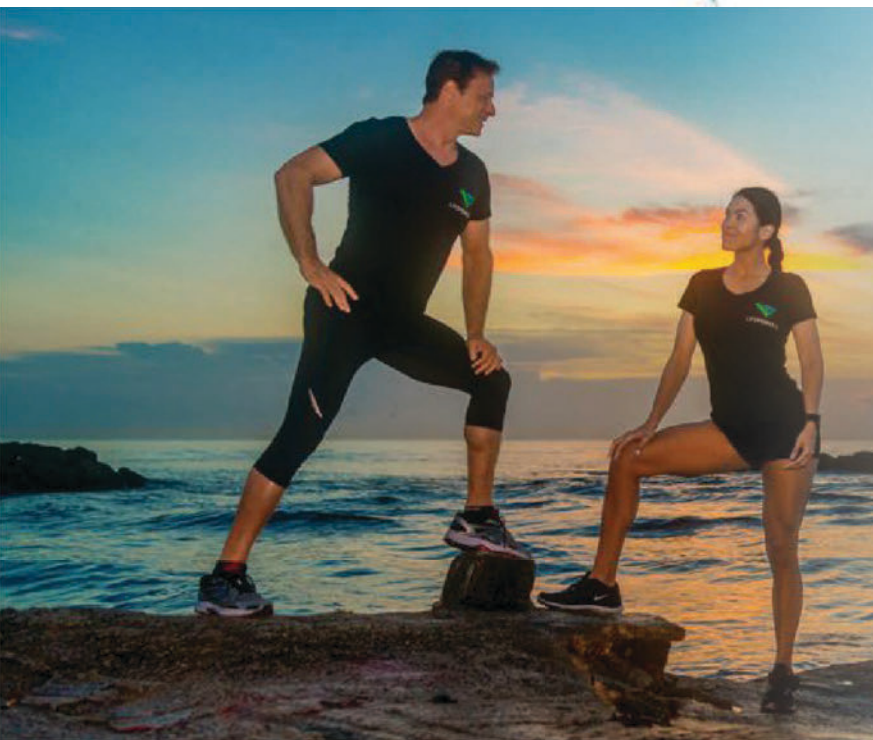
Weinstein was an investment banker for 35 years, specializing in biotechnology and medical companies. With that background and knowledge, combined with his lifelong interest in athletics and anti-aging, he and his wife Leidy are offering their lifestyle design via LIFEFORCE IQ.

"We continuously monitor scientific advances and are quick to adjust products and protocols to assist our clients in optimizing their lifestyles."

In addition to KAATSU equipment including the new 2.0 and KAATSU Aqua, the Weinstein's offer Juvent Health Micro-Impact Platform, LiveO2, Viome, Tower Garden, and One Truth 818.

For more information, [visit here](#).

For additional examples of how people of all ages have improved themselves, [visit here](#).





# MR. UNIVERSE MASTERS KAATSU

