

KAATSU[®]

USER MANUAL

2024



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A NOTE FROM OUR CEO

You're about to embark on an exciting journey with KAATSU, the original and unparalleled Blood Flow Optimization (BFO) modality (commonly referred to as BFR or Blood Flow Restriction), pioneered to elevate your recovery, rehabilitation, athletic performance, and overall wellness. This manual is an introduction to understanding and utilizing the transformative power of KAATSU, designed for individuals from all walks of life and every age group.

Our story begins with a profound insight from Dr. Yoshiaki Sato in 1966, during a moment of discomfort while seated in the traditional Japanese 'seiza' posture. The discomfort in sitting on the heels of his feet spurred the inspiration to create KAATSU. Over the next three decades, Dr. Sato and a collaborative network of Japanese scientists and cardiologists fine-tuned the protocols and applications that define KAATSU today through meticulous experimentation and scientific research based on a profound understanding of anatomy, muscle development, and hormonal mechanisms in the body.

At the heart of KAATSU are two components: patented equipment and proprietary protocols. The equipment includes patented, non-occluding pneumatic AirBands that are operated by a state-of-the-art controller. Depending on your equipment's generation, the controller is connected to the bands via tubes or wirelessly through Bluetooth, offering seamless interaction through a user-friendly app.

Beyond the equipment, KAATSU's essence lies in its diverse and scientifically-backed protocols. Whether you aim to build muscle, boost stamina, enhance agility and balance, reduce metabolic waste in fatigued muscles, or simply improve blood circulation in a sedentary lifestyle, KAATSU offers various applications to meet your needs and goals. This wide range of methodologies can enhance your physical capabilities and enrich the quality of your daily life.

From aiding elite athletes and tactical forces, to empowering individuals overcoming diverse physical challenges, KAATSU's journey is marked by stories of resilience, innovation, and success. Its adoption by the U.S. Department of Defense and its therapeutic applications across various conditions underline KAATSU's broad and impactful reach.

As you delve into this manual, you will gain insights into KAATSU's history, its operational mechanics, and the principles underlying its tailored protocols. Our goal is to equip you with the knowledge and tools to harness KAATSU's benefits, transforming your approach to health, fitness, and well-being.

Welcome to the KAATSU community—where your journey to enhanced health and performance begins.



A stylized, handwritten signature in black ink.

Steven Munatones
Co-Founder and CEO
KAATSU Global, Inc.

INTRODUCTION TO KAATSU

Welcome to the world of KAATSU, a revolutionary approach to fitness and wellness. Whether you're looking to enhance your athletic performance, speed up recovery from injuries, or simply improve your overall health, KAATSU offers a unique and effective solution.

THE ESSENCE OF KAATSU TRAINING

KAATSU, meaning "additional pressure" in Japanese, is a revolutionary training method that safely modulates blood flow to your limbs, creating an optimal environment for growth and healing. By applying precise, calibrated pressure through specialized bands known as KAATSU AirBands, this technique stimulates your body's natural biological responses without the need for heavy lifting or strenuous exercise.



This precise calibration allows you to tailor the experience to your individual needs, considering factors like age and physical condition, ensuring a personalized and effective session.

HOW KAATSU WORKS

The core principle of KAATSU is based on its temporary, incremental, progressive, and repeated modification of the venous return. This is the catalyst for increasing the elasticity of the vascular tissue and a robust

hormonal response. When you perform exercises or are even at rest while wearing KAATSU AirBands, your limbs are gradually and mildly engorged in blood. This process triggers a cascade of beneficial physiological responses, including increased growth hormone production, enhanced muscle protein synthesis, and increased elasticity of the vascular tissue.

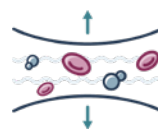
The interplay of increased blood flow, enhanced vascular function, and cellular activity underpins KAATSU's myriad benefits. Notably, it elevates nitric oxide production, vital for blood vessel flexibility and inflammation regulation. Moreover, KAATSU's ability to simultaneously engage both fast- and slow-twitch muscle fibers is beneficial for athletic and muscular development.

Engaging in KAATSU training also triggers lactate production, akin to that experienced during intense exercise, propelling growth hormone secretion and fostering an anabolic state conducive to muscle growth, fat metabolism, and recovery enhancement.



PROCESS

Safe, gradual, and gentle engorgement of blood vessels when using at rest or during exercise.



IMPACT

Increased vascular elasticity and more nutrients, oxygen, and blood flow.



REACTION

Even minimal intensity and low perceived effort leads to production of HGH, IGF-1, VEGF, NO, CRP, β endorphins, BDNF.



OUTCOMES

Muscle hypertrophy, hormonal balance, greater range of motion, and improved muscle functionality.

BENEFITS OF KAATSU

VERSATILITY

KAATSU can be used by individuals of all ages and fitness levels, adapting to your personal health goals—whether it's building strength, recovering from an injury, or enhancing your general well-being.

EFFICIENCY

With KAATSU, you can achieve significant fitness gains in a fraction of the time compared to traditional workouts, making it a convenient option for those with busy lifestyles. KAATSU can also be performed while you are simultaneously doing another primary activity (e.g., walking or writing emails)—a concept called “double stacking”.

SAFETY

Based on scientific research that began in 1994 at the University of Tokyo and practical and clinical applications that began in 1973, KAATSU is a safe and gentle modality when used correctly. It mitigates the risk of injury commonly linked with heavy resistance training for the young and physically fit, as well as with vigorous exercise for individuals who are sedentary, injured, or elderly.

RECOVERY

KAATSU is not only beneficial for enhancing athletic performance but also serves as a powerful tool for rehabilitation, aiding in the recovery from various musculoskeletal injuries and conditions.

KAATSU'S EXPANSIVE REACH

From its roots in Japan to global adoption in over 70 countries, KAATSU's applications span across age groups, professions, and conditions, embodying a versatile tool for athletes, military personnel, rehabilitation patients, and wellness enthusiasts. KAATSU equipment is registered as a Class I medical device by the FDA, underscoring its efficacy and safety.

KAATSU's adaptability ensures it can integrate seamlessly into various settings and routines, offering benefits across performance enhancement, injury rehabilitation, wellness maintenance, and more. Its timing flexibility, from morning to evening, complements any lifestyle or schedule, broadening its accessibility and utility.

As you continue to explore KAATSU's profound impact and applications, remember that this journey is about unlocking your body's full potential in a safe, efficient, and effective manner. As you progress, you'll discover the myriad ways KAATSU can contribute to your fitness, recovery, and overall quality of life.

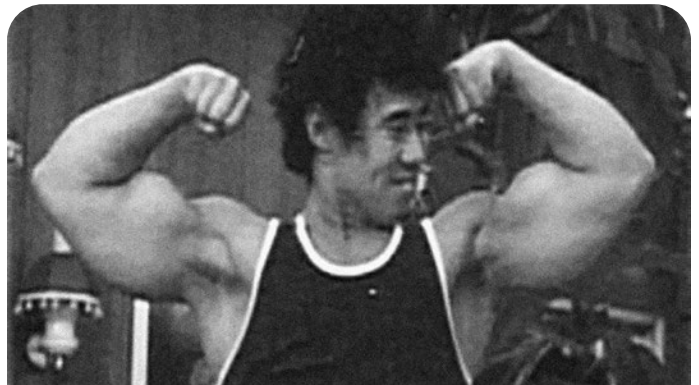


A BRIEF HISTORY OF KAATSU

What started as an intuitive discovery has evolved into a globally acclaimed practice, transforming the realms of fitness, sports, and therapeutic recovery. This chapter unveils the remarkable evolution of KAATSU, tracing its path from an ingenious concept to an internationally esteemed approach, reshaping the way we perceive strength, endurance, and healing.

A SERENDIPITOUS DISCOVERY

The inception of KAATSU occurred quite unexpectedly in 1966 when Dr. Yoshiaki Sato, at the age of 18, was attending a Buddhist ceremony and found himself sitting in the traditional 'seiza' position for an extended period. This position caused his legs to become numb, leading him to intuitively apply pressure on different parts of his limbs to alleviate the discomfort. Through this experience, he observed significant changes in his body and began to conceptualize the principles of blood flow moderation.



23-year-old Yoshiaki Sato in 1971, five years into his pioneering journey of developing KAATSU, shaping a new horizon in fitness and rehabilitation.



Traditional Japanese seiza sitting posture: Kneeling with calves tucked underneath, thighs resting on shins, and feet flat with tops resting on the floor.

Over the next several years, Dr. Sato experimented with various methods and materials to refine his technique, applying bands at different pressures and locations to achieve the desired effect. His persistence and experimentation eventually led to the development

of the first KAATSU bands. Despite initial skepticism from the medical and athletic communities, Dr. Sato continued to develop KAATSU as an effective modality for muscle growth and stamina, recovery from intense workouts and competition, and healthful longevity.

By the 1980s and 1990s, KAATSU became increasingly popular in Japan among athletes and older adults undergoing rehabilitation. Its benefits in improving muscle strength, accelerating recovery, and enhancing athletic performance were increasingly documented and acknowledged.

CROSSING OCEANS

The first seminal scientific paper on KAATSU was published in the *Journal of Applied Physiology* in 2000 and started to shed light on KAATSU from sources

outside of Japan for the first time. A year later, Steven Munatones met Dr. Sato at the 2001 World Aquatics Championships. Recognizing the potential for KAATSU to revolutionize training, rehabilitation, and longevity, Munatones asked to be mentored by Dr. Sato. For 13 years, Dr. Sato and the cardiologists at the University of Tokyo Hospital shared the profound simplicity of KAATSU with Munatones. He studied and translated hundreds of different KAATSU protocols for everyone from Olympic athletes to those as old as 104. These two events began the transfer of knowledge of KAATSU from Japanese to English and the gradual introduction of KAATSU to the world outside of Japan.

Both Dr. Sato and Munatones saw the global potential for KAATSU, especially among increasingly aging and sedentary populations.



Steven Munatones and Dr. Yoshiaki Sato at the KAATSU Japan headquarters in Fuchu.

GOING GLOBAL

In 2014, leveraging Munatones' expertise in sports and entrepreneurship and Dr. Sato's scientific acumen and innovation, they co-founded KAATSU Global Inc. This venture aimed to introduce KAATSU's principles and protocols to the world, making it accessible to athletes, rehabilitation patients, and most importantly, people over the age of 50. Through KAATSU Global, they established standardized protocols, training programs, and certification courses, ensuring the method's integrity and efficacy were maintained across different cultures as well as user and demographic groups.



Dr. Sato delivering a lecture at the 2016 KAATSU Symposium.

KAATSU began facing challenges due to its fundamental differences from the newly popular Blood Flow Restriction (BFR) training. BFR equipment restricts and occludes blood flow using cuffs and tourniquets, impeding arterial flow and venous return at specific percentages. In contrast, KAATSU starts at homeostasis and gently uses uniquely designed pneumatic bands that do not block arterial flow. Instead, KAATSU allows arterial flow to continue unimpeded while temporarily and incrementally modifying venous return.

This gentle approach, developed through collaboration between Dr. Sato and cardiologists at the University of Tokyo Hospital, prioritizes comfort and safety. Unlike BFR, KAATSU is not meant to be uncomfortable or painful. Decades of research demonstrated the effectiveness of gradual blood engorgement in vascular tissue with stretchable, elastic pneumatic bands, as opposed to blood flow occlusion with cuffs and tourniquets.

KAATSU is better described as Blood Flow Optimization (BFO) rather than Blood Flow Restriction (BFR). The establishment of KAATSU Global marked a significant milestone, transitioning KAATSU from a niche technique in Japan to a globally recognized fitness and rehabilitation method. The company's efforts have broadened KAATSU's applications and spurred ongoing

research and innovation, from use in zero-gravity conditions (i.e., space) to enhancing reaction times among eSports gamers.

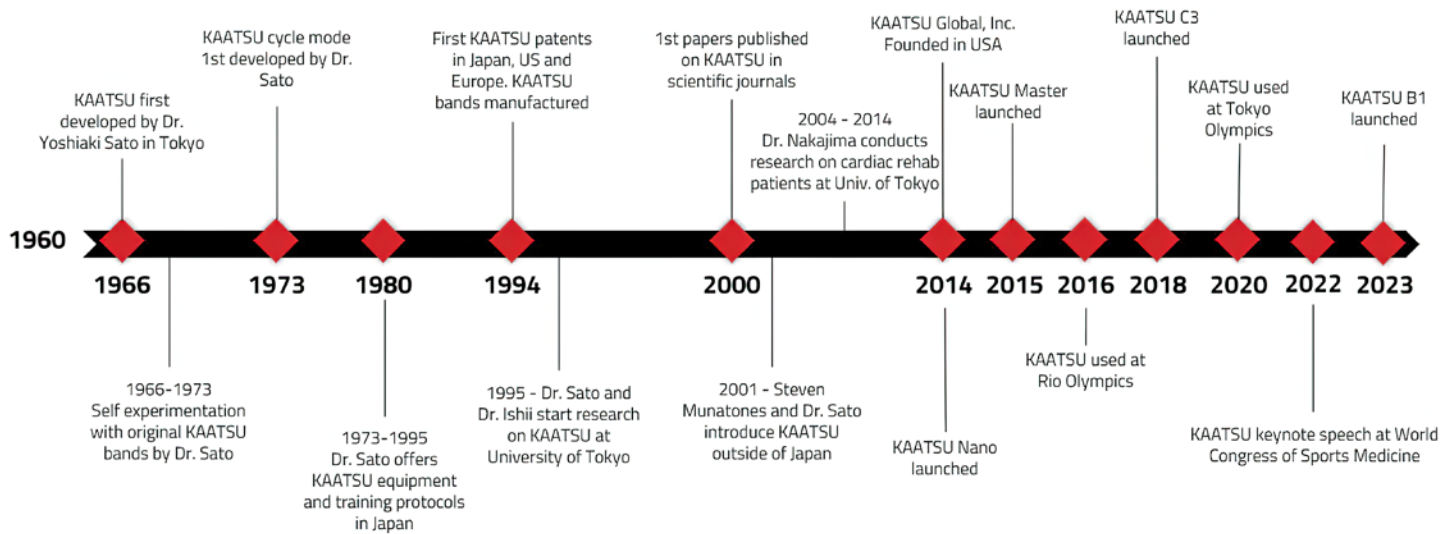
As KAATSU grows and is used by more people for vastly different purposes, additional applications and benefits will continue to be found.

TODAY AND BEYOND

Through seminars, publications, and collaborations with medical and fitness professionals worldwide,

Munatones and Dr. Sato have solidified KAATSU's reputation as a safe, effective, and versatile training, recovery, and rehabilitation method.

Today, KAATSU is embraced by a diverse range of users from Olympic athletes to the elderly, all benefiting from its unique and convenient approach to enhancing vascular health and physical performance. Dr. Sato's original vision and constant pursuit of utilizing the human body's innate potential has transformed a simple feeling in his calves in 1966 to a growing trend in the areas of human performance, physical therapy, recovery, and longevity.



THE SCIENCE BEHIND KAATSU

After you start a KAATSU session, your body begins a remarkable series of healthful, naturally occurring biochemical reactions in your body. This chapter presents a review of the physiological changes that occur during and after a KAATSU session and how they cumulatively lead to improvements in your health and fitness.

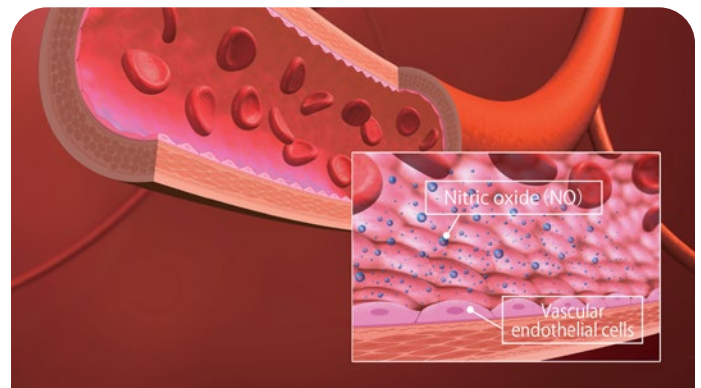
REGULATING BLOOD FLOW

The application of KAATSU AirBands to your limbs acts to subtly modify your blood flow. With repeated inflation and deflation of the AirBands on your upper arms or legs, the venous return (or the flow of blood back from your hands or feet to your torso) is temporarily, progressively, and incrementally modified through the slight compression of the veins in your upper arms and upper legs. This modification leads to a gentle engorgement of blood in your arms or legs that serves as a catalyst for a series of biochemical changes in your body—without, very importantly, occluding or impeding the arterial inflow of blood into your limbs.



During KAATSU, capillaries lengthen and expand to help improve circulation and vascularity.

One of the key physiological responses elicited by KAATSU is the increased production of nitric oxide (NO), a critical molecule in cardiovascular health. This production of NO serves to enhance the elasticity



Endothelial cells release nitric oxide that helps blood vessels improve and restore their elasticity.

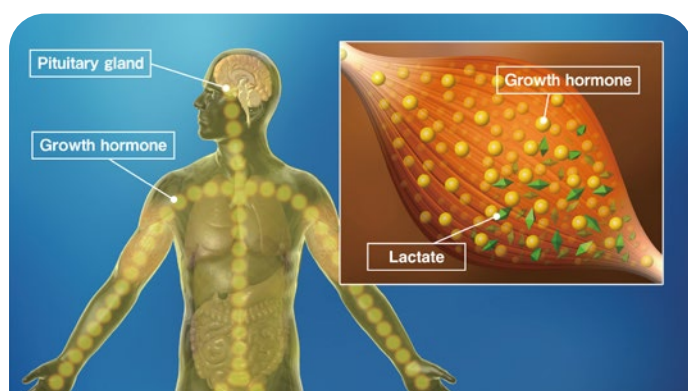
of blood vessels, improving blood circulation and reducing vascular resistance. Consequently, this process of increasing vascular elasticity can lead to lower blood pressure, improved oxygenation of tissues, and enhanced nutrient delivery—all pivotal factors in sustaining a healthy and robust cardiovascular system.

METABOLIC ACTIVATION AND HORMONAL RESPONSE

The blood pooling also elevates the concentration of certain metabolites, like lactate, within the muscles, mirroring what happens during more intense exercise but without the associated physical strain—which is vitally important as we age and helps to reduce the possibility of injury. Your body perceives these elevated metabolite levels as a cue to kickstart various anabolic,

or building, processes just as if you had engaged in a rigorous workout with heavier weights.

The body's response to these metabolic changes includes a surge in growth hormone (HGH) production that can increase your muscle mass and improve your strength and metabolism which, in turn, can reduce body fat and improve overall health. This hormone plays a critical role in muscle synthesis, fat metabolism, and overall tissue recovery. This process effectively supports your body's natural growth and repair mechanisms.



Lactate build-up in the muscles (achieved through simple movement or while sitting) causes the pituitary gland to secrete growth hormones.

In addition to the increased production of HGH, KAATSU leads to a broad spectrum of hormonal and metabolic responses that collectively enhance your physical conditioning and recovery processes. For instance, the concurrent release of Insulin-like Growth Factor 1 (IGF-1) complements HGH's actions. Vascular Endothelial Growth Factor (VEGF) is a signal protein released during KAATSU sessions that enhances blood vessel formation and improves blood supply to the tissues, essential for recovery and healing.

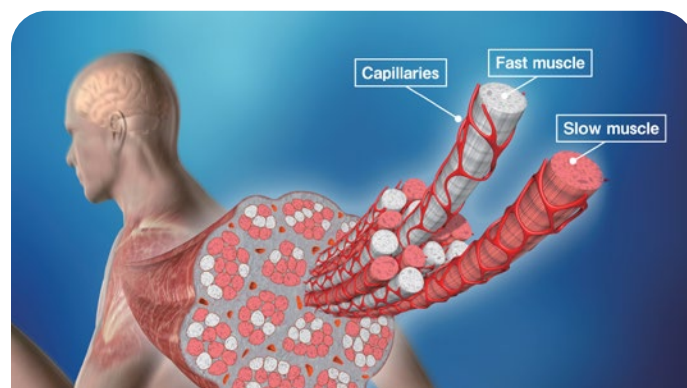
Concurrently, KAATSU induces the release of C-Reactive Protein (CRP), an important part of the body's inflammatory response, which, in controlled

amounts, aids in the recovery process. Additionally, β -endorphins, known for their pain-relieving and mood-enhancing properties, are released, elevating your sense of well-being and pain tolerance.

Brain-Derived Neurotrophic Factor (BDNF) is another significant hormone whose levels are increased with KAATSU. BDNF supports brain health, cognitive function, and neural repair, showcasing KAATSU's benefits that transcend beyond muscle and tissue health, influencing overall brain wellness and function.

MUSCLE GROWTH AND ENHANCED RECOVERY

Depending on the protocol that is followed, KAATSU can not only lead to beneficial stress in the muscle, but also help repair damaged muscle fibers. Both processes help make your muscle stronger and more resilient. Importantly, these strengthening and repair processes are achieved through physiological signaling rather than mechanical overload, reducing the risk of injury associated with traditional weight training.



KAATSU enables simultaneous toning of fast and slow muscle using light loads.

Additionally, KAATSU can help improve the regenerative capabilities of muscle, bone, and connective tissues, partly through the production of stem cells. These

stem cells play a crucial role in the body's natural repair processes. When KAATSU induces a gentle yet effective strain on the muscles, it encourages the release of growth factors and stem cells, which are instrumental in repairing damaged tissues and fostering the creation of new cells.

The increase in stem cell availability accelerates the healing of injuries, supports the repair of tissues, and contributes to overall recovery, not only for athletes looking to enhance their performance, but also for individuals undergoing rehabilitation. Whether recovering from sports injuries, surgeries, or other conditions that necessitate tissue repair, KAATSU promotes swift and effective healing.

Incorporating KAATSU into your recovery or rehabilitation supports the body's natural healing mechanisms. This process underscores KAATSU's dual benefits: bolstering muscle growth while significantly expediting recovery. These phenomena present a holistic approach to health and fitness that leverages

the body's adaptive and reparative capacities for optimal well-being.

SYSTEMIC BENEFITS

The holistic advantages of KAATSU encompass a spectrum of additional systemic improvements. By optimizing blood flow, KAATSU not only leads to a more efficient delivery of essential hormones and metabolites in your body, but also helps improve the removal of metabolic waste, depending on the protocol.

By integrating KAATSU into your lifestyle, you are embarking on a transformative health journey. KAATSU presents a balanced synergy of science and simplicity. The combination of equipment and protocols delivers profound benefits while minimizing the potential risk associated with conventional weight training.

KAATSU is innovative, convenient, and can be seamlessly integrated into your lifestyle at home, in the office, or during travel.

SAFETY CONSIDERATIONS

In this chapter, we'll delve into the safety aspects of KAATSU, a cornerstone of its design and applications. Initially researched and proven safe by testing over 12,000 elderly patients at the University of Tokyo as well as many others of various ages at other renowned institutions, KAATSU prioritizes user safety to achieve a wide range of physiological benefits.

INNOVATIVE DESIGN FOR ENHANCED SAFETY

Unlike conventional tourniquets or blood pressure cuffs, KAATSU AirBands are engineered to optimize blood flow, not occlude it. This critical distinction is evident in their use within the U.S. military by soldiers and universities by students, where safety and efficacy are paramount.

There is an important reason why KAATSU utilizes bands and not cuffs. Cuffs are specifically designed to restrict and occlude blood flow. However, KAATSU AirBands are elastic, stretchable, and monitored precisely by KAATSU's proprietary algorithms. The outcomes were tested, researched, documented, and proven by a team of cardiologists at the University of Tokyo Hospital with over 12,000 patients including over 2,000 patients who were undergoing cardiac rehabilitation.

KAATSU AirBands are specifically designed to be narrow and positioned on the upper arm or upper leg. This design, along with the oval-shaped internal air bladder and stretchability of the AirBand fabric enables—very importantly and uniquely among BFR products—the arterial flow to remain unimpeded. That is, the arterial flow to the hands and feet is not occluded while the venous return is only briefly, temporarily, and progressively modified due to the slightly compressed vein during the compression phase of the KAATSU Cycle mode.



Observe the contrast in hand color: the arm with the blood pressure cuff shows paler skin, indicating restricted blood flow, while the arm with the KAATSU AirBand exhibits a healthier, redder tone, demonstrating optimized blood circulation.

These features enable a broad range of movements including walking, running, swimming, playing ball sports, and doing physical therapy.

The specific degree of inflation and deflation of the internal air bladder is precisely governed by the KAATSU controllers and algorithms so there is consistent pressure amounts for optimal safety and effectiveness.

RESEARCH-BACKED

Developed in 1973, the Cycle mode is the foundation of KAATSU. This process involves rhythmic inflation and deflation of the AirBands that alternatively compresses and decompresses the upper arms or upper legs. The compression is gentle and gradual, enabling the limbs to safely become engorged with blood. This

phenomenon is the subsequent catalyst of a robust hormonal response.

The KAATSU Cycle mode incrementally increases in pressure as well, automatically alternating between 30 seconds of inflation and 5 seconds of deflation in the AirBands. This gentle, effective oscillation enables the flushing of metabolic waste from the muscles and the increased elasticity of the vascular tissue.



This mode took over a decade of product, material, and pressure experimentation, scientific testing, and academic research to create and develop. It serves as the basis for the entire Blood Flow Optimization modality and market.

UNDERSTANDING AND RESPONDING TO BODY SIGNALS

The keys to KAATSU's safety is recognizing and responding to the body's natural feedback. Temporary numbness, clamminess or sweatiness in the hands, and petechiae are three physiological signals that users must be aware of. If any of these three outcomes occur, the pressure in the AirBands must be immediately released and the AirBands removed from the limbs.

Transient numbness refers to a temporary loss of sensation that can occur when:

- the pressure applied by the KAATSU AirBands is too high or unevenly distributed
- used at high altitude
- placed incorrectly on the limb
- used for too long in a sedentary position
- doing intensely vigorous exercises with heavy weights or high resistance

This sensation, akin to the feeling of a limb "falling asleep", suggests that the nerve function in the area is being affected. If experienced, the pressure should be immediately reduced or the AirBands immediately removed or repositioned. This numbness can be caused by various factors:

- Not being well hydrated before or during KAATSU
- Not beginning with the KAATSU Cycle
- Doing vigorously hard aerobic-based exercise in the KAATSU Constant mode, especially at high altitudes
- Going beyond 10 minutes in the KAATSU Constant mode
- Doing the same pressure levels at high altitude
- Doing KAATSU after drinking alcohol

Petechiae, on the other hand, are tiny, pinpoint red spots that can appear on the skin surface near where the KAATSU AirBands have been applied, especially in the back of the arm. These spots result from minor capillary blood leakage under the skin and are a sign that the pressure may be too high for the capillaries in that region.

While petechiae are generally harmless and typically resolve on their own, their occurrence during a KAATSU

session signals the need to lower the pressure and ensure it remains within a safe range. Petechiae can be caused by various factors:

- Not being well hydrated before or during KAATSU
- Not doing the KAATSU Cycle
- Doing intense exercise that you typically do not perform, especially in the KAATSU Constant mode
- Going beyond 10 minutes in the KAATSU Constant mode
- Doing the same pressure levels at high altitude



Such occurrences emphasize the importance of hydration, starting in the KAATSU Cycle mode, and adherence to recommended session durations and intensities.

CONTRAINDICATIONS

Before using KAATSU, it is important to understand its contraindications to ensure your safety and well-being. Consulting with a physician prior to starting KAATSU is essential, especially for individuals who have specific health issues or are over the age of 50. KAATSU is not recommended for those under 14 years of age and should be supervised for individuals under 18. Unless given explicit approval by a healthcare professional,

KAATSU is also not recommended for users with serious medical conditions:

- pregnancy
- cancer
- hypertension
- fractures
- muscle ruptures
- having a pacemaker
- heart disease
- atrial fibrillation
- acute myocardial infarction
- unstable angina
- ventricular tachycardia
- severe arrhythmia
- cardiac insufficiency
- aortic stenosis
- pulmonary embolism
- lung infarction
- myocarditis or pericarditis
- vena cava dissociation
- macular degeneration
- any other acute diseases
- those undergoing medical treatment for serious conditions or those who are in the process of cardiac rehabilitation

For those with peripheral vascular disease, Raynaud's disease, multiple sclerosis, or low blood pressure,

KAATSU is a viable option, provided it is utilized under very low pressure settings utilizing only the KAATSU Cycle mode to avoid adverse effects. Specifically, individuals with Raynaud's disease or multiple sclerosis need to be cautious, as higher pressures may cause post-KAATSU discomfort or pain. It is important that KAATSU is used gently with only a very gradual increase in pressure and that the protocols are modified based on physiological responses.



DIFFERENTIATING KAATSU FROM BFR

Understanding the nuanced differences between KAATSU, defined as a Blood Flow Optimization (BFO) modality and the more commonly known generic Blood Flow Restriction (BFR) training methods is key to understanding why KAATSU is the safer, more gentle, and more effective option. While the core concept shared by KAATSU and traditional BFR is the modification of blood flow to enhance exercise efficacy, the approaches they employ differ significantly.

KAATSU's methodology is predicated on the principle of optimizing blood flow, rather than merely restricting it to a specific percentage of systolic blood pressure as is recommended with BFR products. While it may seem like a nuanced difference, KAATSU begins at homeostasis where there is no occlusion or impedence

of the arterial flow (i.e., blood flowing out to the limbs) or venous return (i.e., blood returning to the torso). Then a very slight pressure is temporarily applied to the upper limbs by the oval-shaped AirBands. This process allows the arterial blood to continue flowing into the limb while the venous return is slightly modified (slowed down) while the AirBands are inflated. The KAATSU equipment combined with the KAATSU Cycle mode ensure that tissues remain oxygenated during the compression of the AirBands. This helps avoid the risk of muscle damage or adverse vascular events that can occur when arterial blood flow is overly restricted, especially with the use of four BFR cuffs simultaneously.

For this important reason, KAATSU equipment is called AirBands and not cuffs. Cuffs and tourniquets are specifically designed to occlude and impede arterial blood flow. This is not what KAATSU AirBands do or how they are designed. The pneumatic KAATSU bands are stretchable and elastic that further enables the arterial flow to continue unimpeded. Furthermore, KAATSU employs automated pressure adjustments through its Cycle mode, ensuring that pressure levels are not only safe but also dynamically adjusted to optimize the training effect and minimize discomfort.

BFR equipment typically involves constant high compression levels and simultaneous use on all four limbs, often causing discomfort. Unlike KAATSU, which has undergone decades of scientific research and testing on tens of thousands of patients by teams of cardiologists since 1994, BFR lacks such extensive validation. Consequently, the higher pressures associated with BFR may not be optimal for individuals of all ages and with diverse conditions.

In summary, KAATSU equipment and protocols are distinguished from BFR products and their applications by focusing on blood flow optimization in a gentle, personalized manner; not blood flow restriction in a formulaic manner based on a percentage of systolic

blood pressure (i.e., Limb Occlusion Pressure). Measuring and monitoring Limb Occlusion Pressure (LOP) is necessary on BFR equipment because arterial flow is occluded. This does not happen with KAATSU equipment.

EMBRACING KAATSU RESPONSIBLY

To use KAATSU safely, very gradually and very incrementally increase the duration and pressure used in KAATSU sessions. By starting conservatively and regularly checking the Capillary Refill Time (CRT), users can continuously ensure the pressure levels are safe and appropriate.

CRT is confirmed by firmly pressing a thumb or forefinger into the base of the palms when the AirBands are on the arms, or on the calf or quadriceps when the AirBands are on the legs. After firmly pressing a thumb or forefinger into the palm, calf, or quadricep, release and observe. There should be a brief moment when the skin turns white and then refills with blood and regains color. CRT is the amount of time in seconds where the blanched skin returns to a normal skin color.

When KAATSU is used correct, the CRT should be quick (1–2 seconds on the palm and 2–3 seconds on the calf or quadricep). If the CRT is longer (i.e., more than 3 seconds), the AirBands are on too tightly or the SKU pressure is too high. In these cases, loosen the AirBands or reset the controller to a lower SKU pressure.

For darker complexion users, the CRT can be checked on the fingernails or toenails, or on the soles of the feet.

To gradually, properly, and safely increase your KAATSU training:

1. Perform one KAATSU Cycle set per day on your upper arms and one KAATSU Cycle set on your upper legs during the first week of use.

2. Increase to two sets on the arms and two sets on the legs during the second week.
3. Gradually increase the number of sets on both arms and legs each week, adding one set on each during subsequent weeks. Aim to reach the maximum of six sets on both arms and legs by the sixth week and beyond.

Adopting this incremental plan will allow your vascular tissue and musculature to gradually and safely acclimate to KAATSU.

KAATSU users may see an increased pinkness, rosiness, or even a redness to their skin color. This is precisely what is expected and is a visual confirmation that blood is being engorged in the limbs and the venous return is being properly modified. If, on the other hand, the skin color appears pale white, gray, or blue, the AirBands are on too tight or the SKU pressure is too high. In this case, immediately remove the AirBands. This color change indicates that arterial blood flow is being impeded in some way.

There may also be some vein distension, especially if there is limb movement or exercise is performed. The vein distension can be especially visible on the top of hands, forearms, and biceps.

By following these guidelines, you ensure a comfortable and effective KAATSU experience, laying a solid foundation for achieving your fitness or rehabilitation goals. Understanding the principles, protocols, and precautions of KAATSU empowers users to harness its benefits safely and effectively. Whether you are seeking performance enhancement, rehabilitation, recovery after heavy work, or general wellness, adhering to these guidelines ensures that your KAATSU journey is both beneficial and secure.

KAATSU BASICS

In this chapter, you'll gain essential insights into the core practices and principles of KAATSU training. Whether you're a beginner or an experienced user looking to refine your knowledge, this chapter provides the groundwork for proper KAATSU usage, empowering you with the necessary tools and understanding to proceed with confidence and competence.

IMPORTANT REMINDERS

The protocols and statements throughout this document have not been evaluated by the Food and Drug Administration in the United States. KAATSU product are not intended to diagnose, treat, cure, or prevent any disease and its use should be evaluated by your own physician before use. Always consult with a KAATSU Specialist or a healthcare provider to maximize benefits while ensuring a safe training regimen.

KAATSU COLOR AND MONITORING CAPILLARY REFILL TIME (CRT)

During a KAATSU session, observing your skin color changes, known as KAATSU Color, can provide insight into its safety and effectiveness. As the AirBands apply controlled pressure, users may notice their skin transitioning from its natural color to shades of pink or red, indicating proper blood flow and venous pooling.



These changes are visual indications that KAATSU equipment is being properly used. However, if the skin turns more pale than normal, blue, or gray, this indicates a lack of proper blood flow and the AirBands must be immediately removed or its SKU pressure lowered.

Capillary Refill Time (CRT) is another vital sign to monitor, offering a quick and straightforward way to assess vascular function during KAATSU use. To check the CRT when wearing arm AirBands, press your thumb into your palm. To check the CRT when wearing leg AirBands, press your thumb just above your knee or on your calf. After briefly and firmly pressing a thumb or forefinger into the skin, release. The time (CRT) that it takes for the skin to return from white to its normal color should be under 3 seconds, ideally 1 or 2 seconds (as counted by "...one-thousand-one, one-thousand-two, one-thousand-three..."). This measurement helps ensure that blood flow is not being impeded or occluded. Regularly checking the CRT and skin color changes during KAATSU significantly enhances the safety and effectiveness of each session, ensuring users gain the maximum benefits without undue risk.

During your KAATSU sessions, you might notice your veins becoming more prominent or distended. This is a normal response and not a cause for concern. However, it is extremely important that you do not experience any uncomfortableness, discomfort, pain, lightheadedness, or any unpleasant sensations during or post any KAATSU session. As you continue

with KAATSU, you may also observe your skin color deepening. This change signifies that your vascular tissues are becoming more elastic and your body is developing additional capillaries, improving blood circulation.

Additionally, there may be some marbling of the skin color in the first few weeks or months of KAATSU use (where there are some areas or splotches of white visible in the palm of the hands). This can be due to a lack of vascular elasticity. Over time, the marbling appearance will gradually turn to a more solid pink or red color with frequent (daily) use of KAATSU.

KAATSU AIRBAND PLACEMENT

ARM AIRBANDS

For the best results and safety during KAATSU sessions, it's important to always correctly apply the KAATSU Arm AirBands. Start by placing the AirBands snugly, but comfortably, around the upper arms near the armpit, below the deltoids, and above where the biceps attach to the shoulder. Place the AirBands around the upper arms with either one-, two-, or three-finger tightness. One-finger tightness can be used by active and fit individuals where a single finger can be placed between the arm and the AirBand. Two-finger tightness can be used by older and more sedentary users who are new to KAATSU. Three-finger tightness can be used by those who are not fit or active and have Raynaud's disease,

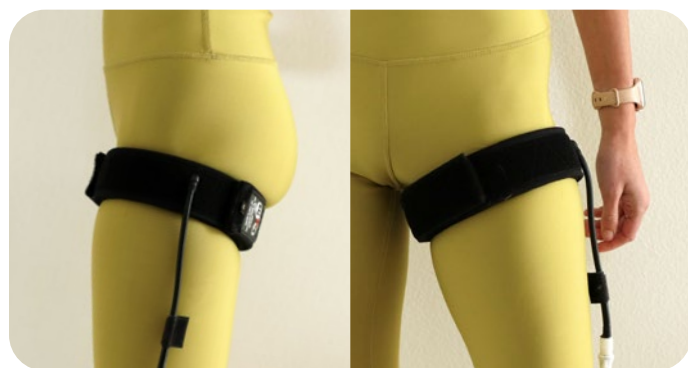


multiple sclerosis, neuropathy, significant varicose veins, or simply feel more comfortable starting off with more loose-fitting AirBands.

For hygienic reasons and to help the AirBands from slipping down the limb, it is recommended to wear the AirBands over clothing, like t-shirts or sweatshirts, which also helps prevent skin irritation. When beginning your KAATSU journey, especially if you have any health concerns, are over 50, or do not do regular exercise, start with a slow and gradual approach.

LEG AIRBANDS

For effective and comfortable KAATSU leg training, it is important to correctly position the AirBands. Start by sitting on the edge of a chair and wrap the AirBands around the upper part of each leg, securing them just below where your leg meets your pelvis, near the groin area. The AirBands should be angled higher towards the outside of the leg compared to the inside of the leg. That is, the AirBands can follow the line of the bottom of a pair of men's briefs or women's swimsuit.



The AirBands should be tight enough so you can fit only one finger between your leg and the AirBands ("one-finger tightness") so the fit is snug and comfortable and will not fall down while walking or doing exercise.

In the case the user has neuropathy, Raynaud's disease, multiple sclerosis, or feels uncomfortable with a one-

finger tightness, place the AirBands with a two- or three-finger tightness.

For optimal results, tighten the leg AirBands while you are comfortably seated in a relaxed position. If the AirBands are applied while standing, the girth of the legs are larger than while seated. This may lead to a fitting that is too loose and the AirBands may fall while walking or doing exercise.

SINGLE VERSUS DUAL LIMB

In KAATSU training, there is a difference between single-limb and dual-limb applications, especially during recovery from an injury, while rehabilitating from surgery, or if a Continuous Glucose Monitor or similar equipment is worn on the arms. Dual-limb KAATSU, the most common application, is where two AirBands are simultaneously placed on both arms or both legs maintaining equal pressure on each. This method is ideal for balanced training and development. However, if there's a discrepancy in strength, difference in balance, or if one limb is recovering from injury, different SKU pressures can be applied to each AirBand to relatively strengthen one limb compared to the other.



However, four AirBands should NEVER be applied to both arms and both legs at the same time. This can

create an overabundance of engorged blood in all four limbs simultaneously that can lead to lightheadedness and a dangerous level of stress. Likewise, avoid using one AirBand on an arm while using another AirBand on a leg.

Conversely, single-limb KAATSU targets one limb at a time, allowing focused training, rehabilitation, or recovery. This method is particularly beneficial for addressing specific limb issues, promoting balanced strength, or aiding in the recovery of an injured limb without overloading it. Since 1973, KAATSU inventor Dr. Yoshiaki Sato has advocated single-limb KAATSU for targeted therapeutic and performance-enhancing purposes, especially in contexts where individual limbs require specific attention or increased functional strength, mobility, flexibility, or agility.

Even when AirBands are applied only to one limb, the benefits of KAATSU are systemic, positively impacting the entire body. This effect is especially important for amputees, disabled individuals, stroke survivors, or those rehabilitating from injuries or surgeries. This single-limb application effectively triggers a cascade of hormonal and physiological responses that extend beyond the targeted area.

When KAATSU stimulates one limb, the body releases growth hormones, endorphins, and other beneficial molecules, proteins, and growth factors into the bloodstream, which circulate throughout the body, promoting recovery, muscle growth, and overall health systemically. This means that even if you're only able to use KAATSU on a single arm or leg due to injury or rehabilitation, you're not just improving the strength or enhancing the recovery of that particular limb, but you're also engaging your body's inherent mechanisms to improve your health and facilitate comprehensive physical conditioning.

For newcomers or those who have no current injuries or limitations, dual-limb applications are generally recommended to ensure balanced development and acclimatization to KAATSU. Single-limb training should be considered under specific circumstances, such as a significant strength imbalance or rehabilitating an injury, always following the guidance of a healthcare professional or a certified KAATSU specialist.

KAATSU MODES

KAATSU controllers offer four distinct modes to cater to various training needs:

- Standard Cycle Mode
- Progressive Cycle Mode
- Reverse Cycle Mode
- Constant Mode

These modes can be used and customized for users at different types of pressure, depending on limb movement, duration, and intensity of exercise, movement, rehabilitation, or recovery. The versatility of these modes and pressure levels enables users to personalize their KAATSU experience to different needs. Each of these pressure levels (Low, Medium, High, and Custom) are measured in Standard KAATSU Units (SKU) that range from 0 to 400.

STANDARD CYCLE MODE

This mode is widely recommended for the majority of KAATSU users due to its effectiveness and safety. The mode's sequence is 30 seconds of compression followed by 5 seconds of decompression, repeated 8 times. That is, the AirBands inflate to a specific SKU level for 30 seconds and then deflate to a SKU level of 0 for 5 seconds. Each time this step is repeated, the SKU levels slightly increase by 10 SKUs.

For example, in the Low Pressure setting, the AirBands are inflated to 80 SKU in the first step. This 80 SKU inflation continues for 30 seconds. This is followed by 5 seconds of deflation to 0 SKU. The AirBands are then inflated to 90 SKU in the second step, followed by 5 seconds of deflation to 0 SKU. This cyclic process continues for 8 steps. This 8-step process is called 1 Cycle set.



The controller can be set to automatically repeat up to 6 Cycle sets, as users wish. Depending on the size of the AirBands, one set of this 8-step sequence ranges from 5 to 7 minutes in duration. That is, Large or Extra Large AirBands will take slightly longer than Small or Medium AirBands to inflate.

If users select 2 Cycle sets, the sequence will be 10–14 minutes in duration. 3 Cycle sets will take 15–21 minutes, etc.

The pressure levels always start at a lower inflation and then gradually and automatically increase by increments of 10 SKU. This incremental progression is essential to achieve the safety and effectiveness of KAATSU.

This dynamic inflation and deflation process is what leads to vascular elasticity and a subsequent hormonal response—both phenomena that are crucial for

muscle repair and growth. This Cycle mode enhances blood circulation, tissue oxygenation, and removal of metabolic waste, supporting both performance enhancement and recovery.

In summary, the Standard Cycle mode consists of these key components:

- Inflation or pressure on for 30 seconds
- Deflation or pressure off for 5 seconds
- 8 Steps are included in 1 Standard Set

PROGRESSIVE CYCLE MODE

This mode is recommended for the more experienced and more active KAATSU users due to its convenience and longer duration.

Similar to the Standard Cycle mode, the Progressive Mode's sequence is 30 seconds of compression followed by 5 seconds of decompression, but it is repeated 16 times. This 16-step process enables the pressure levels to start low, but gradually increases to higher pressure levels. This is why this mode is considered Advanced and is meant to be used by individuals who have gained more experienced over time in using KAATSU equipment.

In summary, the Progressive Cycle mode consists of these key components:

- Inflation or pressure on for 30 seconds
- Deflation or pressure off for 5 seconds
- 16 Steps are included in 1 Progressive Set

Beginning at a Low pressure and gradually increasing to higher pressures over 16 Steps, the Progressive Cycle Mode is ideal for a fitness warm-up, rehabilitation

or recovery session as well as managing stress and overcoming jet lag.

The Progressive mode should only be used by experienced KAATSU users who are already acclimated to higher pressures.

REVERSE CYCLE MODE

The Reverse Cycle Mode is another Advanced setting that should only be used by experienced users after a long duration of exercise (e.g., long bicycle rides, long runs, long hikes). Operating inversely to the Cycle Mode, this Reverse Cycle Mode starts at a higher pressure and decreases with each Step.

This mode is particularly beneficial after intense physical exertion and helps facilitate recovery and relaxation, smoothly transitioning the body back to a resting state. The Reverse Mode should only be used after a user has already performed standard KAATSU Cycle sets or a Progressive Cycle.

CONSTANT MODE

The Constant Mode is another Advanced mode and should only be used by experienced KAATSU users. The Constant Mode maintains a steady pressure throughout the session and is only advised under specific conditions or professional supervision for a limited duration (i.e., no more than 10 minutes).

To ensure safety and efficacy, it is important to choose conservative (i.e., low) pressures and limit use to short periods of time (10 minutes or less).

Movements or exercises in the Constant Mode can include throwing footballs, kicking soccer balls, throwing baseballs, taking golf swings, putting, practicing martial arts, playing musical instruments, dancing, swimming, or a wide variety of other movements where specific strengthening, improvement of agility, or fluidity of

movements is desired. The constant pressure applied in these activities can offer unique resistance training benefits, enhancing muscular engagement and stamina.

It's crucial to maintain proper form and technique regardless of the activity, whether it's golfing, throwing, kicking, or swimming in Constant Mode. Starting with lower pressures than expected is strongly advised to prevent strain. Always monitor comfort and physiological responses closely, adjusting the pressure as needed.

After reaching the 10-minute mark or noticing a decline in form, remove the AirBands, take a brief rest, and hydrate. Then, while you are experiencing a robust post-KAATSU hormonal response, repeating the exercise without the AirBands in Constant Mode. This approach yields significant physiological benefits.



SUMMARY

Users should always begin with the Standard Cycle mode to initially familiarize themselves with the KAATSU equipment and its effects. If desired, they can gradually integrate the Progressive Cycle Mode and the Constant Mode based on their training objectives or rehabilitation and recovery needs.

Always consult with a KAATSU Specialist or a healthcare provider to maximize benefits while ensuring a safe training regimen.

RECOMMENDED PRESSURE SETTINGS

To achieve the best results with KAATSU, selecting the appropriate pressure level based on your experience and health status is crucial. Here's a guideline for using different pressures:

LOW PRESSURE

Ideal for everyone, including beginners and experts, suitable for warm-ups, during various activities, relaxation, physical therapy, and cool-downs. If you're new to KAATSU, stick with this setting until you're comfortable advancing to higher pressures.

MEDIUM PRESSURE

Targeted at active users with KAATSU experience in good health, this setting is optimal when working alongside a coach or trainer. Always ensure your Capillary Refill Time (CRT) is within the recommended range of 1-2 seconds on the arms and 2-3 seconds on the legs.

HIGH PRESSURE

Reserved for advanced KAATSU users and/or those with approval from a specialist or healthcare provider, this setting is intended for those who have thoroughly adapted to the medium pressure.

ADJUSTING YOUR PRESSURE SETTING

When starting your KAATSU training, it's crucial to begin with the Low Pressure setting to get your body accustomed to it. Some users may opt to stick with Low Pressure permanently if they find it suits their needs perfectly. Over time, as you monitor your body's

response via Capillary Refill Time (CRT), you can gradually increase the pressure. Only when your CRT is 3 seconds or less, you may be ready to move from Low to Medium Pressure or from Medium to High Pressure.

Only after feeling comfortable in the Low Pressure setting, you can test trying the Medium Pressure. Always start with your arms before progressing to your legs. Keep a close eye on your CRT when using Medium Pressure; a refill time closer to 1 second is an indicator

that your body is adapting well, and the pressure level is appropriate. However, if your CRT is consistently at or near 3 seconds, it's best to stick with Low Pressure for a bit longer.

The process of increasing pressure from Medium to High follows the same careful observation, ensuring that each progression is tailored to your body's readiness and comfort.

BEST PRACTICES AND CAUTIONS

Embark on your KAATSU journey with confidence by adhering to these essential guidelines, designed to maximize your results while ensuring your safety. What follows is actionable, empowering advice to help you harness the full potential of KAATSU training.

HYDRATION IS KEY

Make water your best friend before, during, and after KAATSU sessions to facilitate optimal circulation and recovery.

WEIGHT LOSS

If you are interested in weight maintenance or reduction, it is important to not eat 90 minutes after finishing a KAATSU session. The expansion of your vascular tissue with KAATSU requires an increased energy consumption which normally leads to a feeling of hunger. If you can refrain from eating 90 minutes after KAATSU sessions, then this discipline can help you achieve your weight maintenance or reduction goals.

ALWAYS USE THE KAATSU CYCLE

Initiate each session with the KAATSU Cycle Mode to safely acclimate your body, setting the stage for more advanced practices. For a vast majority of individuals, the Standard KAATSU Cycle mode and the Progressive KAATSU Cycle mode are the only modes that are recommended or required.

If you wish to build significant muscle or do specific athletic movements with KAATSU, then the KAATSU Constant mode can be used for limited time periods (10 minutes or less).

BREATHE LIFE INTO YOUR WORKOUTS

Do not hold your breath while doing KAATSU. Maintain a steady breathing rhythm by counting your repetitions aloud, ensuring oxygen-rich blood nourishes your working muscles. If you ever feel lightheaded or uncomfortable, immediately remove the AirBands and sit or lie down to recover.

MONITOR AND ADAPT

Regularly check your Capillary Refill Time (CRT) to gauge your body's response, adjusting as needed to maintain a CRT under 3 seconds. Ideally, 1-2 seconds on the arms.

LISTEN TO YOUR BODY

Respond promptly to any discomfort, unusual pain, or lightheadedness by immediately removing the KAATSU AirBands and seeking a comfortable position.

GRADUAL INTRODUCTION POST-SURGERY

With your physician's approval, you can typically begin KAATSU 72 hours after surgery to accelerate rehabilitation. However, some users may start earlier. KAATSU often accelerates skin and suture repair significantly, which should be communicated to your physician.

TAILORED PRESSURE FOR SENSITIVE CONDITIONS

If you have specific medical conditions, like peripheral vascular disease, Raynaud's disease, multiple sclerosis,

or neuropathy, adjust the pressure to lower levels, ensuring a comfortable experience.

PHYSICIAN CONSULTATION

Always collaborate with your healthcare provider before embarking on your KAATSU routine, especially if you are dealing with medical conditions.

AVOID USING ON ALL 4 LIMBS AT ONCE

Never use KAATSU AirBands on both your arms and legs simultaneously. Applying all 4 limbs simultaneously can significantly increase the risk of blood pooling to a level that may be unsafe, potentially leading to lightheadedness and circulatory complications. It also amplifies the intensity of the pressure applied across multiple limb groups, which could overwhelm the body's ability to manage localized blood flow and pressure, increasing the likelihood of adverse reactions. This KAATSU rule must be strictly followed at all times.

STEER CLEAR OF RISKS

Never engage in KAATSU when dehydrated, intoxicated, or under the influence of substances that could impair your judgment or physical response. In addition, the SKU pressure levels should be lowered when exercising at high altitudes. If the Low Pressure setting is used at high altitude, then you can change the one-finger tightness to two-finger tightness.

FOCUS AND SAFETY

Refrain from using KAATSU while driving, fully submerged underwater, or in any scenario that could compromise your balance or attention.

RESPECT YOUR LIMITS

Heed your body's signals, avoiding KAATSU if you experience any pain or the warning signs of improper blood flow or impeding arterial blood flow.

CONSTANT MODE RISKS

It is strongly recommended to avoid the use of KAATSU Constant Mode, especially for those over the age of 50, in a deconditioned state, or at high altitudes. The Constant Mode maintains a fixed level of pressure that can be too intense and potentially risky for individuals in these categories. Instead, focus on utilizing the KAATSU Cycle Mode, which is designed to provide safer, incremental changes in pressure that can be better regulated and adapted to your body's responses.

PROPER PLACEMENT

To ensure the effectiveness and safety of your KAATSU training, it is crucial to only place the AirBands on your upper arms or upper legs. Positioning the bands on any other part of the body will lead to improper pressure application, potentially causing discomfort and circulatory issues. The upper limbs and thighs are anatomically suited to accommodate the AirBands' pressure, preventing any adverse effects.

YOUTH AND HEALTH CONSIDERATIONS

Adhere to age guidelines and health status, ensuring KAATSU is a beneficial addition to your wellness routine.

WATER HAZARD

While the AirBands themselves are waterproof, the controllers are not. To maintain the functionality and longevity of your KAATSU equipment, it is imperative to keep the controllers dry at all times. Water exposure can damage the internal circuitry, leading to malfunction or complete failure of the device.

CARE WHEN SEATED WITH LEG BANDS

While wearing KAATSU leg AirBands, avoid sitting down abruptly on hard surfaces. Such actions can exert undue pressure on the AirBands, potentially damaging

them. Always lower yourself gently and do not put your full body weight on the AirBands while being seated.

HANDLING CONTROLLERS WITH CARE

Never attempt to disassemble or repair the KAATSU controllers yourself. Tampering with the device will void warranties, lead to operational failures, and pose safety risks. If you encounter any issues with your controllers, seek assistance from qualified KAATSU support professionals to address the problem.

SAFE RESISTANCE TRAINING

When integrating KAATSU into your resistance training or weightlifting routine, it is crucial to exercise caution and avoid lifting heavy weights. The essence of KAATSU training capitalizes on low-intensity exercises combined with blood flow optimization to stimulate muscle growth and strength without the need to lift heavy loads. If you choose to use weights, they should not exceed 10-20% of your one-repetition maximum, depending on your age and experience with weightlifting. Lifting heavier than this percentage will significantly increase the risk of injury.

BASIC KAATSU PROTOCOLS

This chapter introduces you to an array of structured exercises and fundamental protocols from initial introduction to addressing specific needs.

IMPORTANT REMINDERS

To start, always engage in KAATSU Cycle mode at a low pressure. Increase in pressure can come gradually based on proper CRT, tolerance, frequency of use, and amount of experience. Always ensure proper hydration, fit the AirBands snugly, and monitor your physiological responses, such as Capillary Refill Time, to maintain optimal safety and effectiveness. Gradual progression and adherence to these guidelines will optimize your KAATSU experience, ensuring beneficial outcomes while minimizing risk.

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3-POINT EXERCISES FOR THE UPPER BODY

These are the 3 basic exercises for the upper body that can be used by everyone: Hand Clenches, Biceps Curls, and Triceps Extensions.

HAND CLENCHES

Hand Clenches involve alternately squeezing and releasing your hands, targeting the muscles of your hands and forearms. Perform this while seated, arms relaxed at your sides, and palms facing upwards. KAATSU is best done by working on the smaller muscles first and then moving to the larger muscles.

BICEP CURLS

Biceps Curls can be performed while seated, standing, or even while walking. Start with your arms in a relaxed position at your sides. Make a fist and then curl your hands upwards towards the shoulder. Then return your hands back down to your sides. Execute these movements at a measured pace, maintaining steady movements. To intensify the exercise, you can add light weights (such as water bottles), and move your arms very slowly (on a 4-6 second count upwards and a 4-6 second count downwards) while contracting the muscles of your arms in both the upwards and downwards directions to maximize muscle development.

TRICEPS EXTENSIONS

Triceps Extensions can be performed while seated comfortably or while standing. Focus on the triceps at the back of your arm. Extend your arms fully and slowly while contracting your triceps as best you can, in both directions. This slow, controlled movement under contraction maximizes the effects of KAATSU.

Integrating these exercises—hand clenches, biceps curls, and triceps extensions—provides a simple and effective upper body workout. Do 3-4 sets of each exercise, continuing to move your arms even while the KAATSU Cycle mode is in the deflation phase.

STANDARD 3-POINT EXERCISES FOR THE LOWER BODY

There are Standard 3-Point Exercises and Advanced 3-Point Exercises for the lower body. The Standard 3-Point Exercises are performed while seated comfortably; the Advanced 3-Point Exercises are performed while standing.

TOE CURLS

While seated, engage your foot muscles by curling your toes inward and then extending them outward. This movement helps to activate the muscles in your feet and lower legs, improving mobility and circulation.

TOE RAISES

In a seated position, lift your toes upward while keeping the rest of your foot flat on the ground. This exercise targets the front part of your lower legs, aiding in the development of shin muscles and enhancing foot dexterity.

SEATED HEEL RAISES

With your feet flat on the floor, gently lift your heels, keeping your toes on the ground. This action works the muscles in the back of your lower legs, particularly your calves, offering both strengthening and toning benefits.

By incorporating these simple yet effective toe curls, toe raises, and seated heel raises into your routine, you can comprehensively engage your lower body muscles.

ADVANCED 3-POINT EXERCISES FOR THE LOWER BODY

STANDING HEEL RAISES

While standing unassisted, slowly lift your heels, keeping your toes on the ground.

STANDING LEG CURLS

While standing and balancing on one leg, slowly lift one heel to your backside. You can hold onto a chair, desk, table, or wall if necessary.

NON-LOCKING QUARTER SQUATS

While standing, lower yourself a quarter of the way down, bending your knees slightly, then rise back up gradually without fully straightening your legs or returning to a fully upright position. Aim for smooth, continuous movement without any pauses.

MAXIMIZING MUSCLE GROWTH

Here's how you can integrate KAATSU into your daily routine to foster muscle growth effectively and safely.

OPT FOR DUAL SESSIONS

Aim to conduct two KAATSU sessions each day for maximum impact. If your schedule allows only one, ensure it combines KAATSU Cycle sets with active movement and exercises.

HYDRATION IS KEY

Always start and continue your KAATSU sessions in a well-hydrated state to maintain optimal performance throughout the process.

PASSIVE AND ACTIVE SESSIONS

Dedicate one session to resting activities, sitting comfortably while engaging in KAATSU Cycle sets for both arms and legs. The other session can be more dynamic, incorporating 3-4 sets of exercises using the Standard KAATSU Cycle mode or the KAATSU Progressive Cycle mode.

MINIMAL REST AND CONTROLLED MOVEMENT

Limit rest between sets to 20 seconds, focusing on slow, deliberate movements through both the lifting and lowering phases and ensuring muscle contraction throughout.

STRIVE FOR FAILURE

Adjust the intensity to approach muscular or technical failure by the end of each set, progressively reducing the number of repetitions as you progress through the sets. Muscular failure is when you can no longer move your limbs. Technical failure is when you can no longer move your limbs with proper technique.

OPTIONAL RESISTANCE

Enhance your exercises with light weights or resistance bands to challenge your muscles further.

LISTEN TO YOUR BODY

Should you experience any discomfort, lightheadedness, or dizziness, cease the exercise immediately and remove the AirBands. Remember, while KAATSU is designed to be challenging, it should never compromise your well-being.

By following these guidelines, you can harness the power of KAATSU to accelerate muscle growth while prioritizing your health and safety.

BEGINNER UPPER BODY TRAINING WITH KAATSU

Enhance your upper body training with these foundational exercises, designed to target key muscle groups gently and effectively.

NECK ROTATIONS

Initiate your session with this soothing exercise to relieve neck tension. Perform slow and controlled neck rotations, moving clockwise and then counterclockwise, to enhance neck flexibility and reduce stiffness.

SHOULDER ROLLS

You can slowly rotate your shoulders backwards and then forwards to provide muscle relief and tension.

UPPER BODY STRETCHING

You can comfortably and slowly stretch your triceps and deltoid muscles.

FOREARM WRIST CURLS AND STRETCHES

Strengthen your forearms and improve wrist mobility with these exercises. Execute wrist curls to build muscle, followed by gentle stretches to increase flexibility and prevent strain, ensuring a balanced approach to forearm conditioning.

DYNAMIC BICEP CURLS AND STRETCHES

Activate your biceps with controlled curls, focusing on muscle engagement throughout the movement. Complement the curls with bicep stretches to enhance muscle elasticity and promote recovery, maintaining a rhythm that encourages both strength and flexibility.

RINGING OUT THE WASH CLOTH

Take a towel or washcloth and wring it out using both hands simultaneously moving in opposite directions.

Incorporating these basic upper body exercises and other movements and exercises into your KAATSU routine will not only enhance muscular strength and flexibility, but also support joint health and mobility.

BEGINNER LOWER BODY TRAINING WITH KAATSU

Enhance your lower body training with a series of KAATSU exercises, thoughtfully designed to target and enhance key muscle groups for overall leg health and strength.

LEG EXTENSIONS

Sit down and extend one leg at a time to engage your thigh muscles. Focus on one leg until muscle failure and then alternate to the other leg.

STANDING LEG CURLS

While standing, perform leg curls to target your hamstrings. You can place your hands on a chair or desk to help maintain balance. As you balance on one leg, pull the heel of your other leg towards your glutes. This exercise helps in building hamstring resilience and flexibility.

CHAIR-ASSISTED SQUATS

Stand in front of a chair and slowly lower your body toward it, stopping just before you sit down, then rise back up to a standing position. This movement helps

improve your squat technique, engages your leg muscles effectively, and builds endurance. Remember, the chair is merely a guide to gauge depth—do not sit down or plop onto it, especially to avoid pressing too hard on the AirBands.

GLUTE BRIDGES

Lie on your back with your feet flat and knees bent. Lift your hips upwards as high as you can, squeezing your glutes at the top before lowering back down. This exercise targets the glutes and the core, improving your stability and power.

ANKLE ROTATIONS

Improve ankle mobility and strength by performing ankle rotations. Rotate your ankles slowly in both directions, focusing on a full range of motion. This gentle exercise aids in maintaining ankle flexibility and preventing injuries.

Incorporating these lower body exercises into your KAATSU training regimen will help you build strength, improve flexibility, and enhance overall leg function, contributing to a solid foundation for your physical activities and daily activities.

ADDITIONAL KAATSU PROTOCOLS

Beyond the basics, these advanced and specialized protocols offer nuanced approaches to further tailor your KAATSU experience whether you're looking to intensify your sessions, target specific fitness goals, or integrate KAATSU into specialized activities.

IMPORTANT REMINDERS

To start, always engage in KAATSU Cycle mode at a low pressure. Always ensure proper hydration, fit the AirBands snugly, and constantly monitor your physiological responses, such as Capillary Refill Time, to maintain safety. Gradual progression and adherence to these guidelines will optimize your KAATSU experience.

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ADVANCED UPPER BODY STRENGTH TRAINING WITH KAATSU

Enhance your upper body regimen with these advanced (more difficult) KAATSU exercises, designed for individuals who have built a strong fitness foundation.

PUSH-UP

Begin in a plank position with your hands shoulder-width apart and directly under your shoulders. Ensure your body forms a straight line from your head to your heels. Lower your body toward the ground, keeping your elbows close to your sides. Push back up to the starting position, engaging your chest, arms, and core throughout the movement. If the standard pushup proves too difficult with KAATSU, consider modifying

the movement by performing it on your knees. It is extremely important to lower the KAATSU SKU pressure when doing push-ups, especially when the KAATSU AirBands are on your arms.

TRICEP DIP

Place your hands shoulder-width apart on a chair or bench behind you. Extend your legs out in front, with heels touching the ground. Lower your body by bending your elbows until they form a 90° angle. Push through your palms to lift your body back to the starting position. Keep your core engaged and avoid sinking into your shoulders.

LATERAL RAISES

Stand with your feet hip-width apart, holding a water bottle in each hand at your sides. Keeping a slight bend in your elbows, raise your arms to the sides until they are parallel with the floor. Lower your arms back down with control. Ensure you maintain a steady pace, focusing on engaging your shoulder muscles.

PLANK

Position yourself in a push-up position with your forearms on the ground and elbows aligned below your shoulders. Engage your core, glutes, and legs to form a straight line from head to heels. Hold this position, maintaining a neutral neck and spine. Focus on breathing steadily while keeping your core engaged throughout the exercise. It is extremely important to lower the KAATSU SKU pressure when in the plank

position, especially when the KAATSU AirBands are on your arms.

CURLS

Stand with your feet shoulder-width apart, holding a water bottle in each hand with your arms extended downward. Curl the water bottles toward your shoulders by bending your elbows while keeping your upper arms stationary. Lower the water bottles back down slowly with control. Keep your elbows close to your torso throughout the exercise and keep your muscles contracted throughout your movements both upwards and downwards.

TOWEL ROW

Hold an end of a towel in each hand so that there is tension in the towel with your hands about shoulder width apart. Fully extend your arms while simultaneously pulling the towel outward to engage your back muscles. Then, pull the towel towards your chest by bending your elbows and squeezing your shoulder blades together, maintaining tension in the towel the entire time. Slowly extend your arms to return to the starting position. Keep your back straight and core engaged throughout the movement.

ADVANCED LOWER BODY STRENGTH TRAINING WITH KAATSU

Strengthen your lower body with these advanced exercises using KAATSU, focusing on bodyweight movements.

SINGLE-LEG GLUTE BRIDGE

Lie on your back with your knees bent, feet flat on the floor, and arms at your sides. Extend one leg out, keeping it in line with your thigh. Push through the heel of your grounded foot, lifting your hips toward the ceiling while keeping your extended leg raised.

Squeeze your glutes at the top of the movement, then lower your hips back to the starting position. Perform all reps on one side before switching to the other leg, ensuring your movements are slow and controlled.

WALKING LUNGES

Stand upright with your feet together and take a step forward with one leg. Lower your hips to drop your back knee toward the ground, creating two 90° angles with your legs. Press through the heel of your front foot to lift yourself and step forward, bringing your back foot to meet your front foot. Continue alternating legs, moving forward with each lunge, maintaining a strong core and upright posture throughout.

QUARTER SQUATS

Stand with your feet shoulder-width apart and toes slightly pointed out. Begin the squat by pushing your hips back and bending your knees, lowering your body only about a quarter of the way down compared to a full squat. Push through your heels to return to the starting position, focusing on engaging your quadriceps and glutes. Perform the movement with control, avoiding any jerky motions.

GOOD MORNINGS / ROMANIAN DEADLIFT

Stand with your feet shoulder-width apart and a slight bend in your knees. Hinge at your hips, keeping your back flat and core engaged, and lower your torso until it's nearly parallel with the floor. Your legs should maintain the slight bend as you hinge forward. Return to the starting position by contracting your hamstrings and glutes, thrusting your hips forward. Keep your head neutral and back straight throughout the movement.

CALF RAISES

Stand upright with your feet hip-width apart. You can do this near a wall or a sturdy object for balance. Slowly

lift your heels off the ground, pressing through the balls of your feet until you are on your tiptoes. Pause at the top, then lower your heels back to the floor with control. Keep your movements smooth and steady, focusing on engaging your calf muscles throughout the range of motion.

SPECIALTY USE CASES

KAATSU's versatility extends well beyond general fitness, as it uniquely increases the elasticity of capillaries throughout the body. This increased elasticity triggers a robust hormonal and metabolic response, benefiting people of all ages. Here's a deeper dive into how KAATSU can be applied across different specialty use cases, providing more instructional guidance.

RELIEVING PAIN AND DISCOMFORT

Back pain, a common issue for many people, can be alleviated with KAATSU Cycle sets. These sets reduce levels of C-reactive protein (CRP), a marker of inflammation in the body. Normally, inflammation leads to increased CRP and pain, but KAATSU helps lower CRP levels. Additionally, KAATSU promotes the production of endothelial progenitor cells (EPCs), which aid in regenerating the endothelial lining of blood vessels. Here's how to approach it:

- 1. Identify the Pain:** Understand whether your pain is muscle-related, nerve-induced, or a result of structural issues to tailor the KAATSU application effectively.
- 2. Always Start with Low Pressure:** Initiate KAATSU Cycle sets at a conservative pressure, focusing on gradual progression.

- 3. Incorporate Specific Movements:** Engage in gentle stretching or controlled movements that target the back without exacerbating pain.
- 4. Consistency is Key:** Regular, gentle sessions will contribute to cumulative benefits, helping alleviate discomfort over time.

SKIN CARE (RECOVERY FROM CUTS, SCARS, SURGERIES)

Whether you're dealing with cuts, scars, or post-surgical recovery, KAATSU is a gentle, yet effective, adjunct to your skin care routine. The KAATSU Cycle sets are designed to promote faster tissue repair and skin regeneration, offering a non-invasive way to support your body's natural healing processes. Here's how you can incorporate KAATSU into your skin care and recovery regimen.



From left to right: Observe the rapid healing progression at 2, 6, 11, and 22 days post-surgery, illustrating how KAATSU facilitates enhanced recovery at each stage.

- 1. Always Start with Low Pressure:** Start your KAATSU Cycle sets in the Low pressure setting to ensure gentle and gradual stimulation.
- 2. Consistent KAATSU Cycle Sets:** Do 3-6 KAATSU Cycle sets per session on your arms, lasting

between 18-36 minutes. These Cycle sets serve to improve blood circulation and enhance tissue repair. After completing the Cycle sets on your arms, take a moment to hydrate before moving on to your legs.

- 3. Incorporate Gentle Exercises:** During your arm Cycle sets, do easy exercises like Hand Clenches, Biceps Curls, and Triceps Extensions. For leg Cycle sets, do Toe Curls, Toe Raises, Leg Curls, and, if feasible, Heel Raises, Standing Leg Curls, and Non-Lock Quarter Squats. These movements help stimulate blood circulation to the skin and underlying tissues.
- 4. Stay Active:** After completing your KAATSU Cycle sets for both arms and legs, do light stretching or walking to further promote circulation and enhance recovery.

BEAUTY REGIMEN FOR FACIAL TONE AND SKIN ELASTICITY

Discover the KAATSU beauty technique used by skin care professionals and makeup artists in Japan to improve facial tone and skin elasticity with optimized blood flow. Here's a simple, yet effective, KAATSU Beauty regimen that targets facial muscles and skin.

- 1. KAATSU Arm AirBands:** Wear the KAATSU AirBands on your arms and start with low pressure KAATSU Cycle sets to initiate gentle blood flow enhancement.
- 2. Facial Muscle Exercises:** While doing the KAATSU Cycle sets, distinctly and repeatedly pronounce vowel sounds (A, E, I, O, U). These actions work your facial muscles, promoting muscle tone and skin tightening in conjunction with the increased blood circulation.

- 3. Consistent Routine:** For the best results, integrate this routine into your daily skin care regimen. Aim for two sessions each day, incorporating up to six KAATSU Cycle sets during each session. This consistency not only aids in facial muscle engagement, but also boosts overall skin health and elasticity.



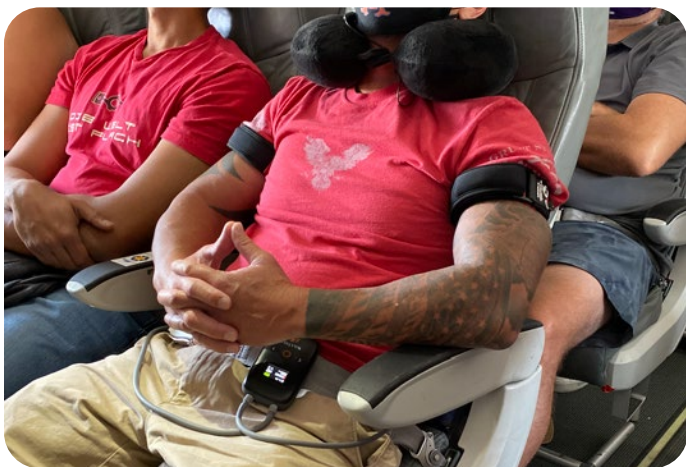
This approach is rooted in scientific research, as demonstrated by a study conducted at the University of Tokyo and Tokyo Metropolitan University. The study revealed that simple exercises, when paired with KAATSU, significantly enhanced forehead cutaneous blood flow, illustrating the potential for broader facial skin benefits.

JET LAG

Make your travels smoother and counteract the effects of jet lag with KAATSU. You can easily incorporate KAATSU sessions into your travel itinerary, whether you're at the airport, onboard your flight, or settling into your hotel room.

To combat jet lag symptoms, insomnia, or stress that often accompany long-haul flights and time zone changes, rely on the gentle and restorative power of the KAATSU Cycle mode. It's designed to induce relaxation and enhance your body's natural adjustment processes.

- 1. Use Gentle Pressure:** When using KAATSU during your travels, always choose a conservative pressure level. The aim is to stimulate blood flow gently to foster relaxation and recovery, not to do intense workouts.
- 2. Incorporate KAATSU Warm-Ups:** Engage in light KAATSU 3-point exercises during the KAATSU Cycle mode at various stages of your journey—before boarding your flight, while in the air, and upon arrival. These exercises can help you feel more invigorated and less affected by the time changes.
- 3. Wind Down Post-Travel:** After reaching your destination, use KAATSU Cycle sets with light stretching to wind down and promote better sleep. These sessions can help reset your internal clock and reduce the physical and mental stress of travel.

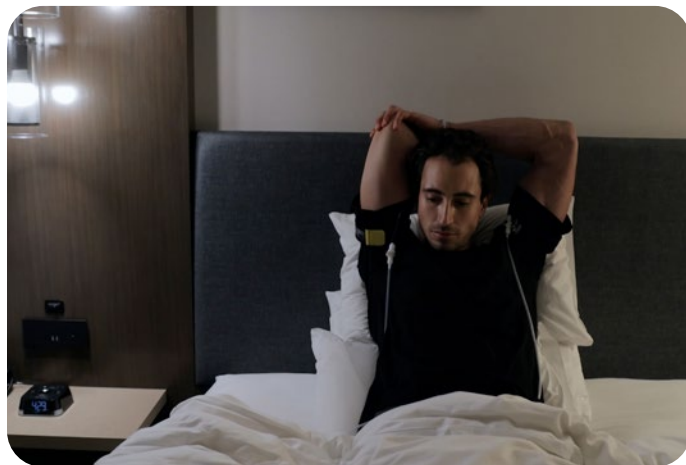


By integrating these KAATSU practices into your travel routine, you can enhance your overall well-being, mitigate jet lag, and improve your travel experience.

BEDTIME AND INSOMNIA

Transform your bedtime routine into a tranquil wind-down session with KAATSU, setting the stage for a

restful sleep. Gentle and soothing movements are key before bed, in order to stimulate your parasympathetic nervous system.



- 1. Embrace Non-Movement:** Opt for calm and effortless non-movement as part of your pre-sleep routine. Vigorous activities should be avoided to maintain a state of relaxation. Always select the Cycle Mode on your KAATSU device to match this gentle approach.
- 2. Engage in Low-Pressure Cycles:** Set your KAATSU device to a low-pressure setting for your evening routine. This gentle and subtle stimulation is enough to prepare your body for sleepful rest without overexertion.
- 3. Warm-Up with Simple Movements:** Use the Cycle mode while doing simple, casual movements like shoulder rolls, gentle head rotations, and basic stretching. These movements promote relaxation and help release the tensions of the day, preparing you for a deep and rejuvenating sleep.

Incorporating KAATSU into your nighttime regimen can enhance your sleep quality, helping you wake up feeling refreshed and revitalized.

IN THE WORKPLACE

Extensive research underscores the health risks of prolonged sitting, which is defined as exceeding eight hours a day. Incorporating KAATSU into your work routine can help counteract the sedentary nature of desk jobs.



While it may sound too good to be true, doing KAATSU Cycle sets help transform sitting into an active exercise routine. With KAATSU equipment readily available at your desk, in your cubicle, or during flights or train journeys, you can incorporate exercise into

your day, mitigating the health risks associated with prolonged sitting. Simple leg, arm, and core exercises with KAATSU are effective ways to stay active, aiding in weight maintenance.

- **Frequency:** Schedule regular intervals to perform KAATSU Cycle sets throughout the day, intermingling during longer periods of sitting.
- **Exercise Selection:** Opt for exercises that are feasible at your workspace, such as seated heel raises or arm stretches.
- **Discretion:** Choose movements and pressures that are subtle yet effective, ensuring they don't disrupt your work or that of your colleagues.
- **Consistency:** Make KAATSU a regular part of your workday and lifestyle to maintain circulation and prevent the downsides of sedentary behavior.

By integrating KAATSU into these specific scenarios, users can harness its benefits tailored to their unique circumstances, promoting recovery, wellness, and productivity through targeted applications.

FAQS AND TROUBLESHOOTING

To assist beginners and ensure a smooth start with KAATSU training, we've compiled a list of frequently asked questions and answers to common issues. These aim to provide quick, accessible information to enhance your understanding and usage of KAATSU.

FAQS

WHAT IS THE DIFFERENCE BETWEEN KAATSU AND TRADITIONAL WEIGHT TRAINING?

KAATSU is a patented blood flow optimization modality that utilizes low-intensity exercises, compared to traditional weight training that relies on high-intensity loads. KAATSU stimulates muscle growth and recovery with less strain, and reduces the risk of injury associated with heavy weights.

HOW OFTEN CAN I USE KAATSU?

You can use KAATSU daily, but the frequency may depend on your goals and physical condition. It is generally recommended to start with lighter frequencies (e.g., 3-4 times a week) and gradually increase frequency over time, especially if you are older than 50 or lead a relatively sedentary lifestyle.

CAN KAATSU BE USED FOR INJURY RECOVERY?

Yes, KAATSU is widely used for rehabilitation and recovery, helping to maintain muscle mass and stimulate circulation during periods of reduced mobility. Always consult with a healthcare provider to ensure KAATSU is suitable for your specific injury recovery plan.

IS THERE AN AGE LIMIT FOR USING KAATSU?

KAATSU is versatile and can be used by individuals of almost any age, including the elderly, to enhance muscular strength and improve circulation. However, it

is not recommended for children under 14, and parental supervision is advised for users under 18.

HOW DO I KNOW IF I AM APPLYING THE CORRECT PRESSURE WITH THE KAATSU AIRBANDS?

The correct pressure should induce a noticeable color change (pink to rosy to red) in your limbs without causing discomfort or pain. Use the KAATSU Cycle mode to explore different pressures and find the one that provides a moderate but comfortable level of pressure.

CAN KAATSU REPLACE MY REGULAR WORKOUT?

Yes, however, KAATSU can also significantly enhance your current fitness routine. It can help you achieve specific goals like increased endurance or faster recovery as well as complement a well-rounded exercise regimen.

WHAT SHOULD I DO IF I EXPERIENCE DISCOMFORT OR NUMBNESS DURING A KAATSU SESSION?

If you experience any discomfort, numbness, or adverse symptoms, stop the session immediately, release the pressure, and remove the AirBands. If symptoms persist, consult with a healthcare professional.

CAN I USE KAATSU FOR CARDIO EXERCISES?

Absolutely! KAATSU can be effectively integrated into cardio exercises, enhancing the benefits of your cardiovascular workout by increasing vascular endothelial growth factor (VEGF), which can improve capillary growth and blood flow. However, even low pressures can lead to significant heart rate increases with high intensity, long durations, or at high altitudes. It is critical to use low pressures in the Cycle mode and to always be cognizant of your body's warning signals (e.g., lightheadedness) if you push yourself too hard with KAATSU SKU pressures that are too high.

TROUBLESHOOTING

AIRBANDS NOT INFLATING PROPERLY

Issue: The AirBands do not inflate when the KAATSU controller is on and the compressors are working.

Solution: Confirm the connector tubes are properly connected to both the AirBands and the controller. You should hear a "click" when the white connectors are attached to the AirBands. For tubeless models, the controllers should all be fully charged and properly synced to your smartphone. Also, reference the "Airband Leaks" section below.

CONTROLLER UNIT ISSUES

Issue: The controller unit is unresponsive or not functioning as expected.

Solution: Confirm that the controller unit is charged. If it still does not respond, reset the unit by turning it off, then connecting the USB charging cable to turn it on.

UNUSUAL DISCOMFORT OR PAIN

Issue: Experiencing unexpected discomfort or pain during use.

Solution: Immediately stop the session and release the pressure from the AirBands. Reassess the fit and pressure level, ensuring they align with the recommended settings. If discomfort persists, consult with a medical professional before resuming KAATSU training.

DIFFICULTY FINDING THE CORRECT PRESSURE

Issue: Uncertainty about how to adjust the AirBands to the appropriate pressure.

Solution: Always start with the Low Pressure setting. The skin of your hands or feet should have a little more color than without the AirBands on.

SKIN COLOR CHANGES

Issue: Noticing insufficient or excessive color change in the limbs.

Solution: If the skin does not exhibit the expected color change, it is most likely that you should manually increase the tightness of the AirBands to a one-finger or two-finger tightness (i.e., you should only be able to place one or two fingers between your skin and the AirBands while the AirBands are uninflated). After you have manually tightened the AirBands to a one-finger or two-finger tightness, then you can slightly increase the SKU pressure. Conversely, if the color change is too pronounced or accompanied by discomfort, reduce the SKU pressure in the AirBands or reset the position of the AirBands on your arms or legs. In some cases, the AirBands may be incorrectly placed on your arms or legs. Always monitor your limbs for proper color indication and adjust as necessary.

AIRBANDS SLIPPING

Issue: The AirBands slide or move during exercise.

Solution: Ensure the AirBands are fitted snugly at the recommended one-finger tightness level. If they continue to slip, consider adjusting the placement or place the AirBands over clothing (e.g., a t-shirt or leggings) to increase their friction, which helps them stay in place during movement.

AIRBAND LEAKS

Issue: The AirBands are not inflating or maintaining pressure.

Solution: Before addressing an AirBand leak, it's crucial to approach the situation methodically to ensure effective repair and maintain the longevity of your equipment. Follow these steps to diagnose and fix a leak in your KAATSU AirBand:

- 1. Identify the Leak Source:** Inflate the AirBand and listen for hissing to detect air escape. If you notice the problem when using both arm and leg bands, inspect the tube at its connection to the gray connector on your controller. For leaks elsewhere, apply soapy water on the AirBand to spot bubbling at the leak site.
- 2. Address Tube Connection Issues:** If the leak is at the connector tube and gray connector

junction, carefully cut the tube 1/2 inch above the damaged area. Clean any residual material from the connector. Reattach the tube by inserting the plastic connector with a twisting motion to secure it. Apply a bit of soapy water on the tube to facilitate this process.

- 3. AirBand Leaks:** For punctures or seam issues on the band itself, proceed to step 5.
- 4. Test and Verify:** After repairs, reinflate the AirBand and monitor for air escape to ensure the leak is sealed. No noise or bubbles should indicate a successful fix.
- 5. Contact Support:** For unresolved leaks or if the leak originates from a seam, contact KAATSU customer support for further guidance or to discuss replacement options if you are within warranty.
- 6. Prevent Future Leaks:** Regularly inspect your AirBands for signs of wear and tear, and store them properly to prevent future leaks. Avoid overinflation and sharp objects that could puncture the bands.

MAINTENANCE, WARRANTY, AND SUPPORT

This chapter explains how to maintain your KAATSU equipment for peak performance. It outlines warranty coverage and steps to address defects. Additionally, it provides guidance on accessing customer support for troubleshooting and repairs.

MAINTENANCE AND CLEANING

- Use clean wet tissue or a dry cloth to clean the controller unit(s). Do not use alcohol or oils that can seep into the controller unit and damage it.
- Use alcohol wipes to clean the KAATSU AirBands.
- Store the KAATSU controller unit(s) in a cool, dry location. Do not allow the controller unit(s) to get wet. Also, do not store the controller unit(s) in humid locations for long periods of time.
- Do not use KAATSU controllers in wet saunas, ice baths, cryotherapy chambers, or in the rain or fog.
- Do not leave the KAATSU equipment outside or exposed to climatic conditions.
- Always start in the Low Pressure mode.
- Limit your use of the KAATSU Constant mode, especially over 350 SKU.

WARRANTY AND SERVICE INFORMATION

The warranty period for KAATSU equipment begins on the date of shipment to the customer. The standard warranty period for the electronic controllers is one year or six months on the KAATSU AirBands.

KAATSU Global warrants during the warranty period that the equipment will function properly under normal use, will be free from defects in materials

or workmanship, and will conform to the published specifications.

KAATSU Global will repair or replace equipment that does not meet the limited warranty. The decision to repair or replace the product is at KAATSU's option. If KAATSU Global is unable to repair or replace the equipment, payment to the buyer will not exceed the amount paid for the equipment.

This limited warranty is void if the failure of KAATSU equipment is caused by accident, abuse, unauthorized repair, modification or misapplication of the equipment by the user.

The warranty is voided if:

- The user pulls or tears the controller units from the KAATSU AirBands.
- The controllers are used in water, get wet, or are used in the rain or a wet sauna.
- Water or rust is found inside the controller.
- The controller is dropped on a hard surface.
- The user sits down or exercises with the inflated leg AirBands on hard surfaces, as excess pressure can destroy the internal air bladders.
- The buttons on the controllers are pushed so hard that they break.
- The white connectors are pulled out of the KAATSU AirBands.

- The LCD screen is cracked by dropping the controller units on a hard surface.
- Excessive pressure is applied on the LCD screen, causing it to be unreadable or cracked.
- The controller case is opened, or the user attempts to repair the controller units by themselves.

assist you. We are committed to ensuring you have the best experience possible with your KAATSU products.

Technical support, customer service, and answers for medical inquiries is available at +1 (888) 3-KAATSU or +1 (888) 352-2878 Monday through Friday from 9 am to 5 pm Eastern time, or via email at info@kaatsu.com.

CONTACT INFORMATION FOR SUPPORT

For any issues or inquiries regarding your KAATSU equipment, our dedicated support team is ready to

KAATSU TERMINOLOGY

By familiarizing yourself with the following terms, you'll be better equipped to understand and maximize your KAATSU training sessions, ensuring a more informed and effective experience.

AIR BLADDER

An inflatable component within the KAATSU AirBands that inflates in Standard KAATSU Units, controlled precisely by KAATSU controllers.

ARTERIAL FLOW

Refers to the movement of blood from the heart to the limbs, an essential component in understanding how KAATSU impacts circulatory dynamics.

BASE SKU (STANDARD KAATSU UNITS)

The initial level of compression set when the AirBands are first manually positioned on your limbs, critical for establishing a starting point for pressure adjustment.

BFR (BLOOD FLOW RESTRICTION)

BFR generally refers to reducing blood flow into and out of the limbs using constrictive devices, such as modified tourniquets and blood pressure cuffs. KAATSU's methodology is different and distinct by enabling unimpeded arterial flow while temporarily and briefly modifying the venous return. This is more accurately referred to as Blood Flow Optimization or BFO.

CAPILLARY REFILL TIME (CRT)

A quick, indicative test measuring the time for color to return to an external capillary bed after applied pressure (by firmly pressing and then releasing a thumb or forefinger into the palm of your hand or in the quadricep). The CRT is a simple test that visually indicates proper AirBand tightness and circulatory

response to KAATSU training. The CRT should be less than 3 seconds in duration; ideally 1-2 seconds.

KAATSU

The pioneering technique developed by Dr. Yoshiaki Sato, which translates to "additional pressure," offering a profound modality of blood flow optimization for performance, rehabilitation, wellness, and recovery.

KAATSU AIRBANDS

These are patented, pneumatic bands equipped with an oval-shaped air bladder, designed to be worn on the upper areas of the limbs during KAATSU sessions.

KAATSU COLOR

The change in skin tone to pink, rosy, or red during a session, indicating effective blood engorgement in the targeted limbs, a key indicator of correct KAATSU application.

KAATSU CYCLE

A dynamic and patented KAATSU modality with brief phases of increasing and decreasing AirBand inflation.

KAATSU SPECIALIST / MASTER INSTRUCTOR

Certified professionals who have mastered the KAATSU protocols and training, equipped to guide and instruct individuals in safe and effective KAATSU applications.

KAATSU PROTOCOLS

Developed and patented procedures and guidelines that ensure safe, effective KAATSU training and rehabilitation, reflecting decades of innovation, testing, research, practical experience, and clinical expertise.

ONE-FINGER TIGHTNESS

A measure of how snugly the KAATSU AirBands should be positioned, allowing only a single finger's width for optimal pressure and comfort under most situations.

SKU (STANDARD KAATSU UNIT)

The unit of measurement for pressure applied by KAATSU AirBands. While it aligns with the concept of

mmHg (millimeters of mercury), a common unit for measuring blood pressure, SKU is tailored specifically to KAATSU devices to ensure precise and consistent application of pressure, facilitating safe and effective use of KAATSU equipment.

3-POINT EXERCISES

A trio of simple movements for either the arms or legs that can be used as either warm-up movements or regular exercises.

VENOUS FLOW

The return flow of blood from the extremities back to the heart.

KAATSU C4 QUICKSTART GUIDE

KAATSU C4 QUICK START GUIDE

US Patent 9,775,619 | FDA Registration #3011600585

The **KAATSU C4** is the fourth-generation KAATSU Cycle product that is ideal for individuals, coaches, trainers, chiropractors, physical therapists, and caretakers with its Cycle, Progressive, Reverse, and Constant Modes and proprietary KAATSU AirBands. The ruggedized controller and waterproof AirBands are extremely versatile and can be safely utilized anywhere, anytime—including in the rain, snow, mud, dust, and sand—for recovery, rehabilitation, and performance purposes for people of all ages, conditions, and walks of life.



WHAT'S INCLUDED

- KAATSU C4 Controller
- 2 Connector Tubes
- Single-Limb Plug
- USB Type-C Charger
- Black Carrying Case
- Access to KAATSU 101 Course

SAFETY PRECAUTION

Please contact your physician before use if you take medication, are pregnant, or have any other health conditions that may cause complications with the use of KAATSU.

BATTERY

The green battery icon in the upper right-hand corner of the screen indicates the current battery level. To charge, plug the USB-C charger into the side of the C4 controller.

WARRANTY

The C4 device is covered by a 1-year warranty (or 2 years if the additional warranty was purchased at checkout). Please visit our website for more information.

**Do not submerge the C4 underwater. Only AirBands are waterproof. Use of the KAATSU C4 requires strict adherence to the protocols outlined in the KAATSU 101 course. This product is not intended to diagnose, treat, cure, or prevent any disease and its use should be evaluated by your own physician before use.*

SETUP

- Insert gray end of the connector tube(s) into the top of the C4. If only utilizing 1 limb, then insert the Single-Limb Plug. Attach the white end of the tube to the white connector on the AirBands. You should hear an audible click.
- Place the AirBands on **either** your arms **or** legs. Arm AirBands are placed on your upper arm, above your bicep and below your armpit. Leg AirBands are placed above your thigh, near your groin. You should only be able to fit 1 or 2 fingers snugly between the band and your limb after tightening.
- To turn on device, press and hold the red power button on the side of the C4 for at least 3 seconds until you hear a beep.
- Use the touch screen to navigate to your desired settings.

SETTINGS / ICONS

- SOUND:** Press to mute or unmute the confirmation beeps.
- BACK:** Press to go back one screen.
- HOME:** Press to immediately return back to the Home screen.
- CYCLE MODE:** Sequence of increasing pressure/release for 8 steps.
- PROGRESSIVE MODE:** Sequence of increasing pressure/release for 16 steps.
- REVERSE MODE:** Same as Cycle, but with decreasing pressure/release.
- CONSTANT MODE:** Sustained pressure for a maximum of 10 minutes.
- A ARMS POSITION:** Indicates the use of the KAATSU Arm AirBands.
- L LEGS POSITION:** Indicates the use of the KAATSU Leg AirBands.
- LOW SKU:** Preset pressure of 80-150 SKU (Arms) or 230-300 SKU (Legs).
- MEDIUM SKU:** Preset pressure of 130-200 SKU (Arms) or 280-350 SKU (Legs).
- HIGH SKU:** Preset pressure of 180-250 SKU (Arms) or 330-400 SKU (Legs).
- CUSTOM SKU:** Customizable range of pressure up to 400 SKU.
- STEP:** 30 seconds of compression followed by 5 seconds of decompression.
- 1/6 SET:** Indicates current Set (group of 8 Steps). Select up to 6 Sets per session.



KAATSU

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KAATSU B2 QUICKSTART GUIDE



佐藤義昭
DR. YOSHIAKI SATO
INVENTOR OF KAATSU

KAATSU B2

“

Since I first invented KAATSU in 1966, I envisioned a future where people of all ages and from all walks of life could safely and conveniently use KAATSU to significantly enhance their athletic performance, rehabilitation, recovery, and healthspan.

That future has arrived.

Your patented KAATSU B2 can be used anywhere, anytime—in your home or at work, during travel or outdoors, while working out hard or relaxing comfortably.

The KAATSU B2 is operated by your smartphone. All of your usage data is archived, analyzed, and can be shared with healthcare providers, family, friends, trainers, and teammates. ”

WHAT'S INSIDE

The KAATSU B2 includes KAATSU AirBands for your arms and/or legs, Bluetooth-enabled controllers, the KAATSU Connect app (for Android or iOS), a protective clamshell, a USB-C dual charging cord with power block, and access to our online KAATSU 101 educational course. There is a one-year warranty on your controllers and a six-month warranty on your AirBands.

Use of the KAATSU B2 requires strict adherence to the KAATSU principles and protocols outlined in the KAATSU 101 course.

B2 RESOURCES



KAATSU B2 QUICK START GUIDE



SETTING UP YOUR B2

1. Make sure both controllers are fully charged before initial setup.
2. Download the KAATSU Connect app from the Apple or Google Play store. Begin by registering an account on the app and filling out your User Profile.
3. To turn on the controllers, press the center buttons until the lights turn red. In the app, select Left or Right, then press the Pair button to connect. The center button on one controller will turn blue. Repeat for the other side.
4. Place the AirBands on either your arms *or* legs. Tighten until you can only slide one finger between the band and your limb. Begin your KAATSU session by selecting the Cycle Mode.
5. *Always* start with KAATSU Cycle in the Low pressure setting. After your initial Set at Low pressure, you can then proceed to the Medium, High, or Custom pressure if appropriate. The left and right AirBands can be inflated to different pressures if needed.

Download on the App Store



GET IT ON Google Play






ARM POSITION LEG POSITION

Under the Advanced Modes, you can access the Progressive Cycle, the Reverse Cycle, or Constant. The Progressive Cycle gradually increases pressure over 16 Steps. Reverse Cycle starts high and ends low. Constant allows the bands to remain inflated for up to 10 minutes, and then automatically deflates.

You can listen to music, take phone calls, and send text messages while the B2 is operating. Additionally as an option, the KAATSU B2 integrates with the Masimo MightySat® Finger Pulse Oximeter so you can capture and archive your pulse rate, respiratory rate, and perfusion index data when you use the B2.

The KAATSU Connect app captures your data in real time and stores it in the KAATSU database. You can share your data with physicians, physical therapists, chiropractors, trainers, coaches, and/or teammates if you wish.

KAATSU B2 has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease and its use should be evaluated by your own physician before use.

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REGULATORY INFO AND PRODUCT SPECS

REGULATORY INFORMATION

The KAATSU equipment is a FDA Class I registered device. Class I includes low-risk devices that are not intended for use in supporting or sustaining life or of substantial importance in preventing impairment to human health, and may not present a potential unreasonable risk of illness or injury. Class I devices do not come into contact with an individual's internal organs, central nervous system or cardiovascular system.

KAATSU equipment does not diagnose, cure, mitigate, treat, or prevent any medical disease or condition.

ESTABLISHMENT REGISTRATION

- Establishment: KAATSU Global Inc.
- Registration Number: 3011600585
- Date of Registration Status: 2024

DEVICE LISTING

- Proprietary Name: KAATSU B1; KAATSU B2; KAATSU C3; KAATSU C4; KAATSU Cycle 2.0; KAATSU M3; KAATSU Master 1.0; KAATSU Master 2.0; KAATSU Nano
- Classification Name: Massager, Therapeutic, Electric

- Product Code: ISA
- Device Class: 1
- Regulation Number: 890.5660
- Medical Specialty: Physical Medicine
- Owner/Operator: KAATSU Global Inc.
- Owner/Operator Number: 10049349
- Establishment Operations: Manufacturer; Specification Developer

PRODUCT SPECIFICATIONS

- Dimensions of the C4 controller are W 2.6 x H 4.3 x D 1.3 inches.
- Dimensions of the B2 controller units are W 3.3 x H 2.2 x D 1.0 inches.
- Battery for C4 and B2 controller units is 3.7V, 1300mAh, 4.61 Wh Li-Ion Battery
- USB Charger for the C4 and B2 controller units is Input 100-240V, 50/60 Hz, 0.35A Max, Output: 5.0 VDC 2.0A 10W
- Air Pump for the C4 and B2 controller units is Input DC 3V, Max Pressure up to 728mmHg, Air flow rate 1.6 Liters per minute

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