The Science

WHOLE BODY

ACTIVE & PASSIVE

HYPERTHERMIC WELLNESS & FITNESS RECOVERY

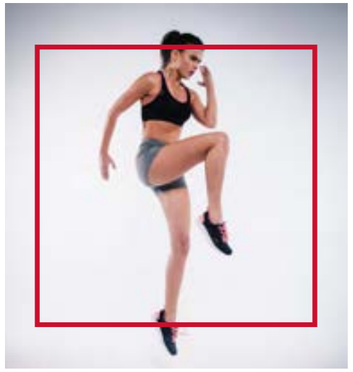
HYPERTHERMIC CONDITIONING

Hyperthermic INFRARED sessions coupled with restorative **photonic red light and oxygen energy**, totally upregulates and stimulates a series of **Physiological and Biochemical changes** (BDNF, HGH, HSPs, IGF-1, etc.) to:

ACCELERATE IMPROVED RECOVERY AND ATTAIN AMPLIFIED & MAXIMIZED HUMAN PERFORMANCE CAPABILITIES.

HYPERTHERMIC CONDITIONING

Hyperthermic Conditioning provides **wellness benefits similar to exercise**:

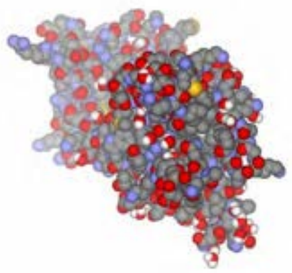


EFFECTS ON THE THE BODY

- INCREASED **CORE BODY TEMP.**
- INCREASED **METABOLISM**
- INCREASED **HEART RATE**
- INCREASED **PERSPIRATION**
- ACTIVATION OF **HSPs (HEAT SHOCK PROTEINS)**
- **GROWTH HORMONES**

HYPERTHERMIC CONDITIONING

EFFECTS ON THE THE BRAIN

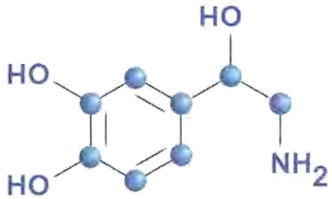


Increase the Expression of BDNF

(Brain Derived Neurotrophic Factor)

Important growth factor for growing new neurons.

BDNF plays important roles in memory, learning, mood disorders, food intake and energy metabolism



Increase NOREPINEPHRINE

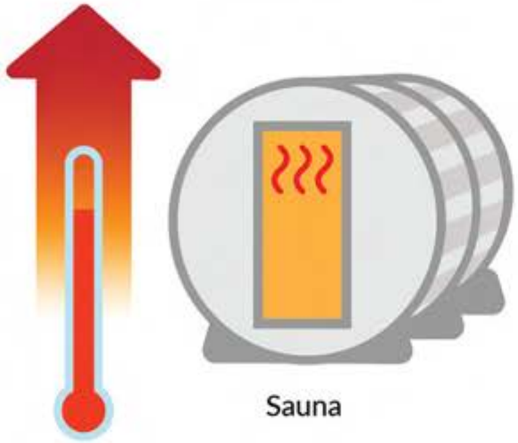
Improves attention and focus

Increase PROLACTIN

Causes your brain to function faster

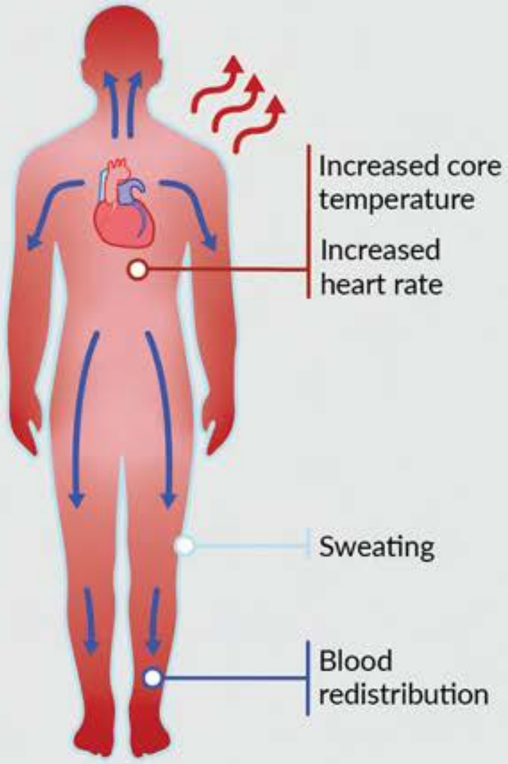
HYPERTHERMIC CONDITIONING

HEAT STRESS

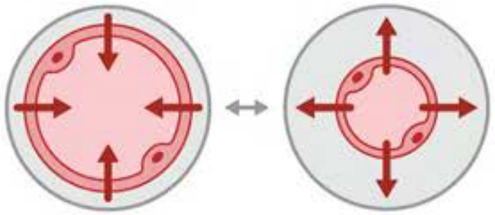


- ↓ Cardiovascular disease
- ↓ Muscle atrophy
- ↓ Neurodegenerative disease
- ↑ Healthspan

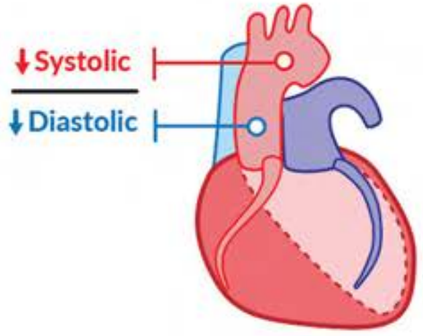
Mimics exercise-induced physiological responses



Improves vascular compliance

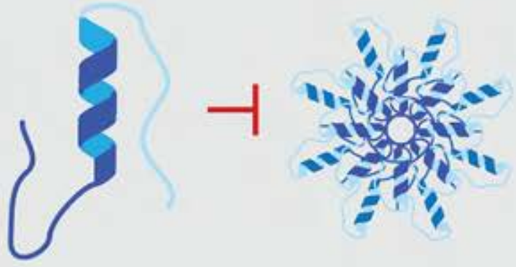


Improves resting blood pressure



Activates heat shock proteins

Prevents protein aggregation



HYPERTHERMIC CONDITIONING

Heat stress

Heat shock protein (HSP) activation

Protects tertiary (3D) protein structure

Heat shock proteins

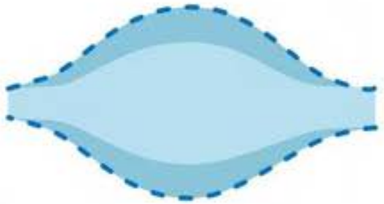
Prevents protein aggregation

Protects against neurodegenerative disease:

- Alzheimer's
- Parkinson's
- Huntington's

Protects against cardiovascular disease:

- Heart failure
- Cardiomyopathy
- Atherosclerosis



Slows muscular atrophy

Promotes longevity

HYPERTHERMIC CONDITIONING IS EQUIVALENT TO TRADITIONAL EXERCISE

HYPERTHERMIC CONDITIONING CAN INCREASE YOUR CORE BODY TEMPERATURE BY UP TO **4 DEGREES F / 2.5 C.***

* LANDSBERG L, YOUNG JB, LEONARD WR, LINSENMEIER RA, TUREK FW. DO THE OBESE HAVE LOWER BODY TEMPERATURES? A NEW LOOK AT A FORGOTTEN VARIABLE IN ENERGY BALANCE. TRANSACTIONS OF THE AMERICAN CLINICAL AND CLIMATOLOGICAL ASSOCIATION. 2009;120:287-295.

HYPERTHERMIC CONDITIONING IS EQUIVALENT TO TRADITIONAL EXERCISE

Hyperthermic Conditioning **Increases Metabolism by 10% - 13% for Each Degree Fahrenheit** *(18% for each Degree Celsius)* the Core Body **Temperature Increases**

INCREASE IN BODY TEMPERATURE IS ALSO ASSOCIATED WITH A **FASTER METABOLIC RATE***.

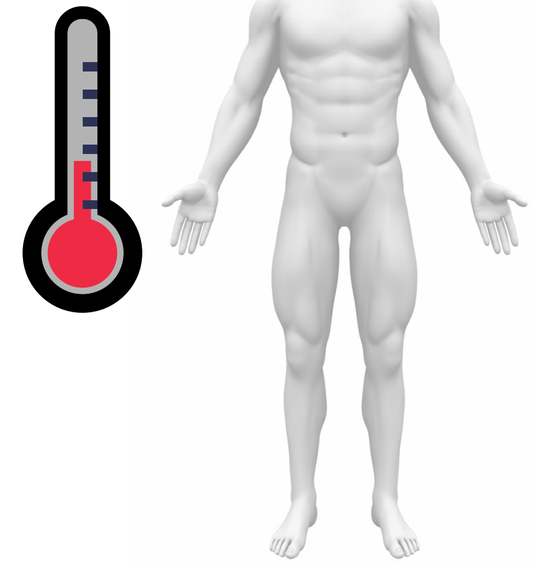
* Landsberg L, Young JB, Leonard WR, Linsenmeier RA, Turek FW. Do the Obese Have Lower Body Temperatures? A New Look at a Forgotten Variable in Energy Balance. Transactions of the American Clinical and Climatological Association. 2009;120:287-295.

HC INCREASES CORE BODY TEMPERATURE

THE CORE INCREASES IN RESPONSE TO THE ENERGY REQUIRED TO KEEP OUR BODY COOL.

When you increase your core body temperature, your metabolism increases

1 F°
1 C°



=

10-13%

16-18%

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

HOW OLD ARE YOU?	How many degrees has your temp. gone up?	Percentage increase in metabolism per every degree your core body temp. goes up: **13%**	Age "reduction" number for 24 hrs*
50	**3**	**39%**	**30.5 yrs old**

*If you achieve + 3 degrees F x 13%= .39 x 50 age = 19.50 + (-50) = **30.5 metabolic age for 24 hours.**

If you achieve + 2 degrees F x 13% = .26 x 50 age = 13 + (-50 age) = **37 metabolic age for 24 hours.**

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

HYPERTHERMIC CONDITIONING SESSIONS PROVIDE **CALORIC BURN AND ENERGY EXPENDITURE EQUIVALENT TO A 30 MINUTE WALK*.**

* Faulkner, S.H., Jackson, S., Fatania, G., Leicht, C.A., The effect of passive heating on heat shock protein 70 and interleukin-6: A possible treatment tool for metabolic diseases?

HYPERTHERMIC CONDITIONING IS EQUIVALENT TO TRADITIONAL EXERCISE

HC INCREASES FITNESS ENDURANCE UP TO 32%

J Sci Med Sport. 2007 Aug;10(4):259-62. Epub 2006 Jul 31.
Scoon GS, Effect of post-exercise sauna bathing on the endurance performance of competitive male runners.

HEAT TRAINING PROMOTES RECO ERY IMPRO ES PERFORMANCE

“

Heat training not only does a better job at increasing VO2 max than altitude, but it also makes athletes better at withstanding a wider range of temperatures.

Santiago Lorenzo, Professor of Physiology

The Surprising Benefits of Training in the HeatIs heat better than altitude? The science seems to say so. July 2016
.https://www.outsideonline.com/2098556/surprising-benefits-training-heat

HYPERTHERMIC CONDITIONING PROMOTES RECO ERY IMPRO ES PERFORMANCE

“

Passive heating of the organism stimulates secretion of **Growth hormone (hGH)** to a greater extent than does elevation of the body temperature induced by physical activity

Biology of Sport, Vol. 24 #4, 2007

HYPERTHERMIC CONDITIONING PROMOTES RECO ERY IMPRO ES PERFORMANCE

BOOST YOUR PERFORMANCES WITH HEAT

“

Heat is a shock to the system, generating some of the same cellular responses that exercise and altitude do

Chris Minson, University of Oregon Physiologist

How Heat Therapy Could Boost Your Performance. Elite athletes are turning up the thermostat in pursuit of an edge, August 2018 https://www.outsideonline.com/2337621/heat-therapy-performance-research

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

HSPs' INCREASE MUSCLE RE-GROWTH

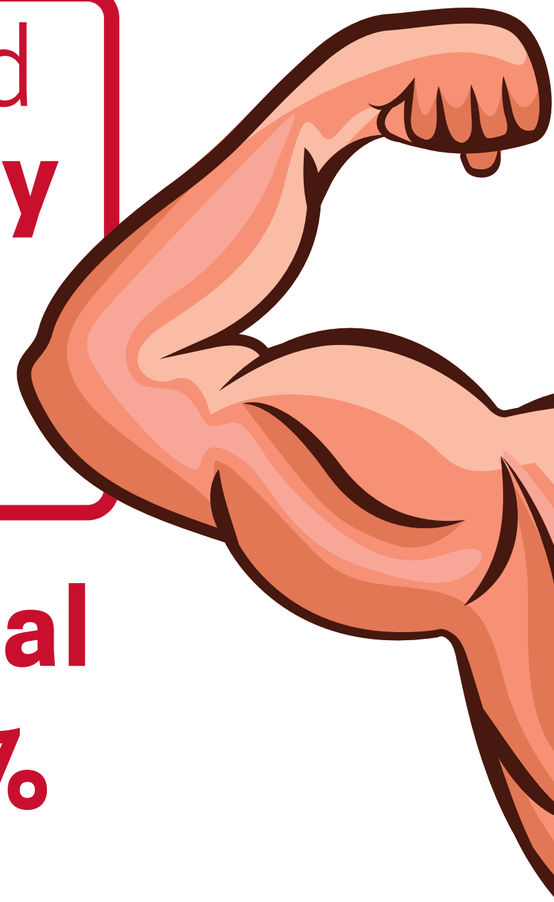
OVER 30%

Sesby, J T. et al. **intermittent hyperthermia enhances skeletal muscle regrowth and attenuate oxidative damage following reloading**. J Appl Physiol (1985). 2007 Apr;102(4):1702-7. Epub 2006 Nov 16.

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

HC helps retain Muscle Mass and reduces **Skeletal Muscle Atrophy**

BY 37%

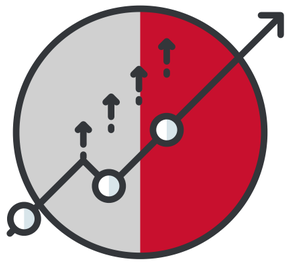


+ Enhances MUSCLE **Mitochondrial Biogenesis** and **Function by 28%**

Daily heat treatment maintains mitochondrial function and attenuates atrophy in human skeletal muscle subjected to immobilization

Paul Samuel Hafen_02 MAY 2019 https://doi.org/10.1152/japplphysiol.01098.2018

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE



HC MAINTAINS MUSCLE MASS WITHOUT EXERCISE & BOOSTS MUSCLE STRENGTH UP TO 17%

Passive heat acclimation improves skeletal muscle contractility in humans. Am J Physiol Regul Integr Comp Physiol. 2017 Jan 1; Racinais S, Wilson MG, Périard JD.

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

INCREASE GROWTH HORMONE

UP TO 1600%

Sesby, J T. et al. intermittent hyperthermia enhances skeletal muscle regrowth and attenuate oxidative damage following reloading. J Appl Physiol (1985). 2007 Apr;102(4):1702-7. Epub 2006 Nov 16.

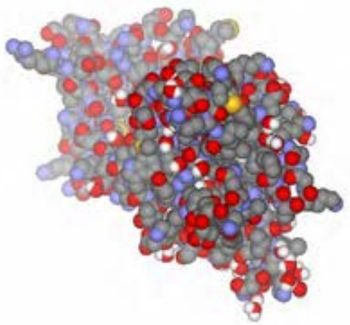
HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

INCREASE DELIVERY OF NUTRIENTS & PERFORMANCE OF MUSCLE GLYCOGEN BY UP TO 50%

Glycogen reserves provide energy to power the muscles

J Appl Physiol (1985). 1985 Nov;59(5):1350-4.Muscle metabolism during exercise in the heat in unacclimatized and acclimatized humans. King DS

HYPERTHERMIC CONDITIONING PROMOTES BDNF



EXERCISE AT HIGH ROOM TEMPERATURE INCREASES & RESULTS IN HIGHER BDNF LEVELS THAN AT LOW ROOM TEMP.

Goekint M, Roelands B, Heyman E, et al. (2011). **Influence of citalopram and environmental temperature on exercise-inducedchanges in BDNF**. Neurosci Lett 494:150–4

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

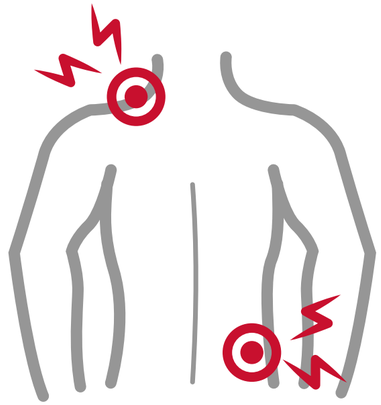
Cardiovascular Improvements

HC INCREASES **FAVORABLE BLOOD CIRCULATION** PROFILES AND **VASCULAR ADAPTATIONS** SIMILAR TO TREADMILL RUNNING.*

* Kate N Thomas, André M van Rij, Samuel J E Lucas, and James D Cotter, Lower-limb hot-water immersion acutely induces beneficial hemodynamic and cardiovascular responses in peripheral arterial disease and healthy, elderly controls, Am J Physiol Regul Integr Comp Physiol 2017 Mar 21;312(3):R281-R291. Epub 2016 Dec 21.

HYPERTHERMIC CONDITIONING

Hyperthermic conditioning **helps treat Rheumatoid Arthritis** and temporarily **reduces Pain & Stiffness**



Agrawal S. (2018): Effects of moderate whole-body hyperthermia and complementary medicine in the treatment of rheumatoid arthritis: a preliminary study; Oncothermia Journal 22:8-19

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

HEAT INCREASES FLEXIBILITY

BY 205%

Heat acclimation improves exercise performance. Santiago Lorenzo, John R. Halliwill, Michael N. Sawka, and Christopher T. Minson. J Appl Physiol (1985). 2010 Oct; 109(4): 1140–1147. Published online 2010 Aug 19. doi: 10.1152/japplphysiol.00495.2010

HYPERTHERMIC CONDITIONING

Hyperthermic conditioning **relieves the SYMPTOMS OF MAJOR DEPRESSION** with a prolonged therapeutic benefit

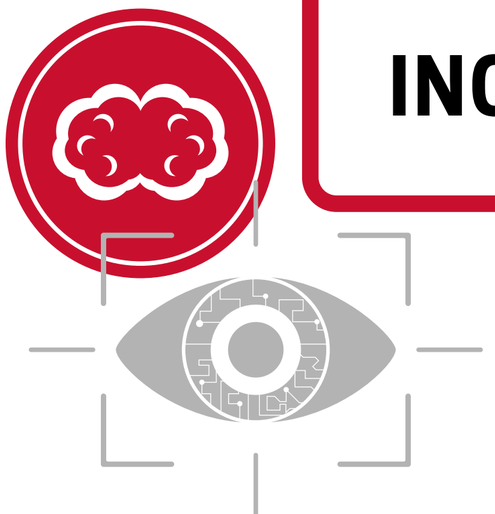
Whole-Body Hyperthermia for the Treatment of Major Depressive Disorder. A Randomized Clinical Trial; JAMA Psychiatry | Original Investigation. August 2016. Clemens W. Janssen, PhD; Christopher A. Lowry, Charles L. Raison, MD.

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

HELP BRAIN FUNCTION FASTER, INCREASE FOCUS & ATTENTION

INCREASE NOREPINEPHRINE BY 310%

INCREASE PROLACTIN BY AS MUCH AS 1000%



Eur J Appl Physiol Occup Physiol. 1989;58(5):543-50. Haemodynamic and hormonal responses to heat exposure in a Finnish sauna bath. Kukkonen-Harjula K

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

INCREASE GROWTH OF NEW BRAIN CELLS

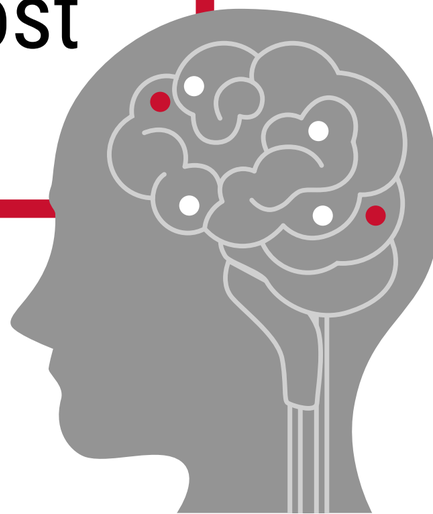
INCREASE SYNTHESIS OF BDNF BY OVER 300%

Goekint M. Influence of citalopram and environmental temperature on exercise-induced changes in BDNF. Neuroscience Letters [06 Mar 2011, 494(2):150-154]

HYPERTHERMIC CONDITIONING PROMOTES BDNF & THERMOGENESIS

INCREASE BDNF TO PROTECT AGAINST NEURODEGENERATIVE DISEASES*

*such as **Alzheimer's, Parkinsons, Huntington, Dementia.** Help prevent protein aggregation & boost repair of damaged proteins



J Cell Commun Signal. 2014 Dec;8(4):293-310. **Heat shock proteins in neurodegenerative disorders and aging.** Leak RK.

BRAIN DERIVED NEUROTROPHIC FACTOR

BDNF is best known for its influence on the:

- **Formation, growth, survival, and development of neurons** and
- for its role in **mediating the beneficial cognitive effects associated with exercise.**

BDNF also plays key roles in numerous signaling pathways associated with:

- **Depression**
- **Schizophrenia**
- **Obesity**
- **Diabetes**

In general, **LOWER BDNF LEVELS are linked with POOR HEALTH**

HC REDUCES INFLAMMATION

HYPERTHERMIC CONDITIONING
increases anti-inflammatory biomarkers.

and helps play a major role in longevity, the aging process and prevention **of many age-related diseases (cancer, heart disease, Alzheimer's disease, etc.) and temporary reduction of Pain.**

Laukkanen, Jari A., and Tanjaniina Laukkanen. **Sauna bathing and systemic inflammation** European Journal of Epidemiology 33, no. 3 (December 2017): 351–53. doi:10.1007/s10654-017-0335-y.

HYPERTHERMIC CONDITIONING

HYPERTHERMIC CONDITIONING REDUCES STRESS

- HC helps **minimize stress, Increase Relaxation and reduce Anxiety**
- HC **increases "feel good" Endorphins for greater Vitality, Mental Health and Emotional Well-being.**
- HC helps **reduce chronic metabolic imbalances caused by stress**

HYPERTHERMIC CONDITIONING

HC INCREASES **BETA-ENDORPHINS TO HELP THE SYMPTOMS OF DRUG ADDICTION** & PSYCHOLOGICAL DEPENDENCE

HC INDUCES GREATER **DYNORPHIN & BETA ENDORPHIN** INTERACTION FOR A **NATURAL 'FEEL GOOD' MU OPIOID REWARD STATE**

J Neurochem. 2003 Jun;85(5):1171-9. Heterologous mu-opioid receptor adaptation by repeated stimulation of kappa-opioid receptor: up-regulation of G protein activation and antinociception. Narita M

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

PASSIVE HYPERTHERMIC CONDITIONING HELPS COMBAT **CHRONIC INFLAMMATION & PROVIDES SIMILAR CARDIO-METABOLIC BENEFITS AS EXERCISE*.**

* Faulkner, S.H., Jackson, S., Fatania, G., Leicht, C.A., 2017The effect of passive heating on heat shock protein 70 and interleukin-6: A possible treatment tool for metabolic diseases?

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

WHOLE-BODY PASSIVE HEATING **GENERATES FAVORABLE BLOOD CIRCULATION PROFILES AND ASSOCIATED VASCULAR ADAPTATIONS** IN COMPARISON **TO TREADMILL RUNNING**

* Kate N Thomas. **Lower-limb hot-water immersion acutely induces beneficial hemodynamic and cardiovascular responses in peripheral arterial disease and healthy, elderly controls,** Am J Physiol mRegul Integr Comp Physiol 2017 Mar 21;312(3):R281-R291. Epub 2016 Dec 21. School of Physical Education, Sport and Exercise Sciences, University of Otago, Dunedin, New Zealand

BENEFITS OF HEAT

HYPERTHERMIC CONDITIONING HAS BENEFITS SIMILAR TO EXERCISE

IMPROVEMENT OF QUALITY OF LIFE: AMONG 65 PATIENTS, THERMAL THERAPY REDUCED CARDIAC DEATH AND REHOSPITALIZATION

by 31.3%.

Conclusion: A slight increase in core body temperature is a promising, non-invasive, effective, and complementary therapy for patients with heart failure.

Can Heat Therapy Help Patients with Heart Failure?Thipse M. Artif Organs. 2020 Feb 3.

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

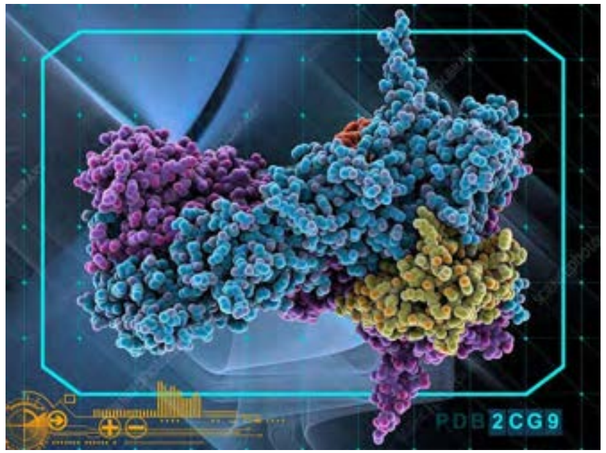
REDUCE RISK OF DIABETES

HSP's Reduce Blood Sugar Level and
Increase Insulin Sensitivity by **30%**

* Kokura, S. et al. International Journal of Hyperthermia; Int J Hyperthermia. 2007 May;23(3):259-65.

Heat Shock Proteins (HSPs)

- HYPERTHERMIC CONDITIONING **increases HSP levels by 50%**
- INCREASED **HSP levels stay elevated for 48 hrs.**



Increased expression of HSPs **prevents protein disorder & aggregation** by **repairing proteins that have been damaged**

Heat stress and cardiovascular, hormonal, and heat shock proteins in humans, Iguchi M1, Littmann AE, Chang SH, Wester LA, Knipper JS, Shields RK., J Athl Train. 2012 Mar-Apr;47(2):184-90.

HYPERTHERMIC CONDITIONING IS SIMILAR TO TRADITIONAL EXERCISE

HEAT SHOCK PROTEINS AND HEAT THERAPY FOR TYPE 2 DIABETES

"Transient increments in **nitric oxide and heat shock protein 70** levels may **explain the benefits of heat therapy.** Together, higher (or normalized) nitric oxide levels, HSP70, AMPK, and eNOS **will improve insulin signaling, body composition, endothelial dysfunction, and the low grade inflammation found in people with diabetes.**

HYPERTHERMIC CONDITIONING

HC SESSIONS 4-7 TIMES A WEEK,
LOWERED THE RISK OF DEMENTIA BY 66%

...AND LOWERED
THE RISK OF ALZHEIMER'S DISEASE BY 65%

* Laukkanen, T., Kunutsor, S., Kauhanen, J., Laukkanen, J.A., Sauna bathing is inversely associated with dementia and Alzheimer's disease in middle-aged Finnish men Age Ageing first published online December 7, 2016

HC For WEIGHT MANAGEMENT

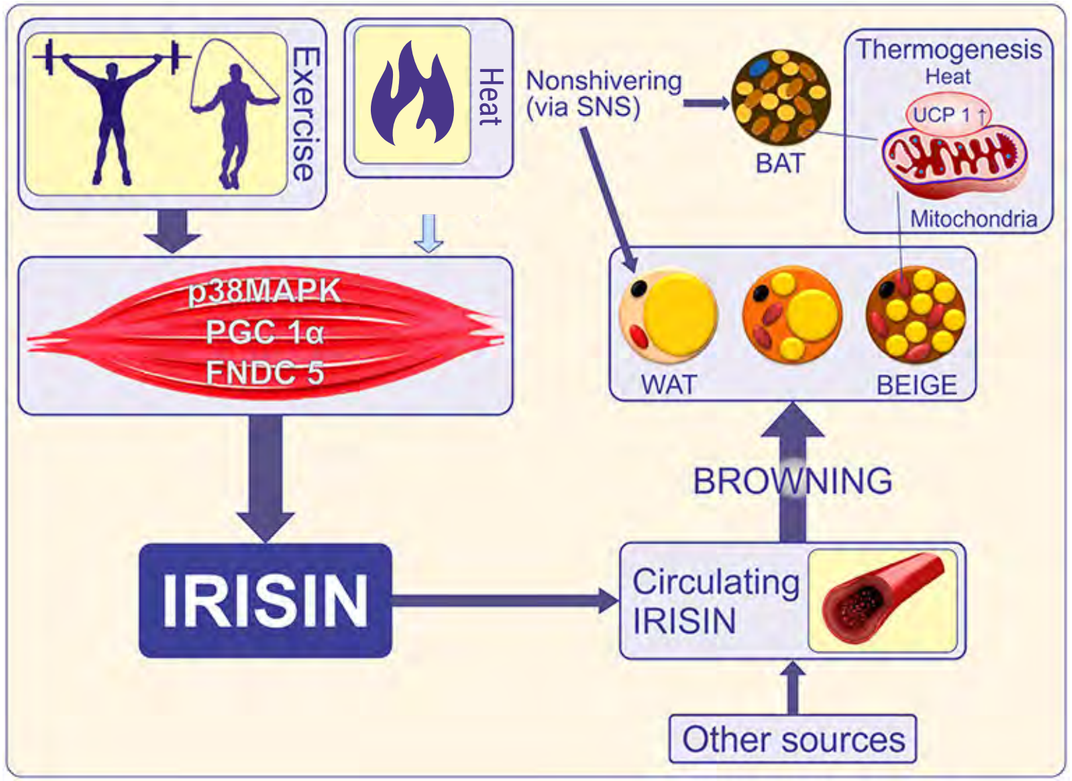
- Hyperthermic conditioning can cause **sweat loss** of from 1 to 3 liters per hour —from **2 to 6 pounds**!

- Each vaporized liter of sweat extracts **580 calories** from the body!

⁎ *(1) McArdle, W.D. Katch, F.I, Exercise Physiology, Sixth Edition (2007).*

HC For WEIGHT MANAGEMENT

- Role for **passive heating (PH) and Heat Shock Proteins (HSP)** in improving cardio-metabolic health or **IRISIN**, a skeletal muscle-secreted myokine, also produced in response to physical exercise which has protective functions in both the central and the peripheral nervous systems, including the regulation of **Brain Derived Neurotrophic Factor (BDNF)*.**



***Irisin**, primarily known as a myokine and as a chemical messenger, **transmits the beneficial effects of physical exercise to the adipose tissue** (**browning and thermogenesis**) and other organs involved in metabolism.*

* ***Journal of Thermal Biology 101** (**2021**) Whole-body repeated hyperthermia increases irisin and brain-derived neurotrophic factor: A randomized controlled trial*

HC For WEIGHT MANAGEMENT

- **Passive Whole Body Hyperthermia (PH)** performed with our Cocoon Pod (Alfa Basic) leads to the **increase in IRISIN levels and caloric uptake of fat burn.**

- Indicative of a **new role for hyperthermia** as a potentially useful, non-pharmacological, **non-invasive treatment, alternative to exercise for people suffering from metabolic diseases and/or obesity.**

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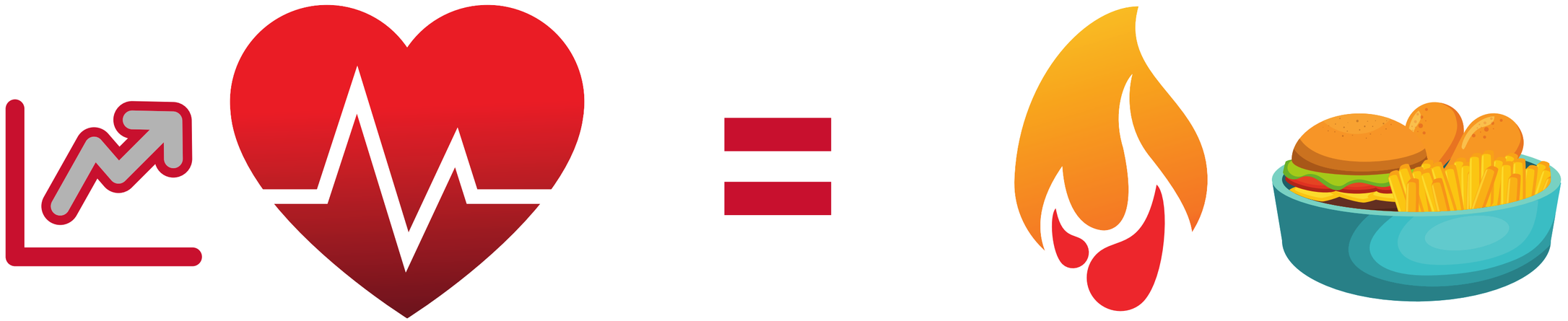
* ***Journal of Thermal Biology 101 (2021)*** *Whole-body repeated hyperthermia increases irisin and brain-derived neurotrophic factor: A randomized controlled trial. School of Health and Human Performance (Dublin City University, Ireland) and Moscow State Medical University (Russia)*

HYPERTHERMIC CONDITIONING INCREASES HEART RATE

The higher the heart rate, the more calories burned.



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HC For WEIGHT MANAGEMENT

- Increased lean mass causes increased calorie burning (muscle tissue burn over 90% of the Calories we consume)

- Both exercise and heat exposure cause heat shock and promote mitochondrial biogenesis (2–3-fold increases in muscle mitochondria) leading to increased muscle mass

⁎ *Tremblay A, Despres JP, Leblanc C, et al. Effect of intensity of physical activity on body fatness and fat distribution. Am J Clin Nutr 1990;51:153-7.*

Skeletal muscle fatty acid metabolism in association with insulin resistance, obesity and weight loss, American Journal of Physiology Vol 277, Dec. 1, 1999. Free Radical Biology and Medicine, Vol. 11 (1991) 239-246, HSP70 and other possible heat shock or oxidative stress proteins are induced in skeletal muscle.

HC For WEIGHT MANAGEMENT

- Hyperthermic conditioning has been shown to triple the synthesis of **BDNF (BRAIN DERIVED NEUROTHROPIC FACTOR)** in the human brain

- Studies show that BDNF is important for controlling appetite and satiety

Heinonen I, Kalliokoski KK, Hannukainen JC, Duncker DJ, Nuutila P, Knuuti J (2014). "Organ-Specific Physiological Responses to Acute Physical Exercise and Long-Term Training in Humans". Physiology (Bethesda) .

Juan Ji An, Guey-Ying Liao, Clint E. Kinney, Niaz Sahibzada, Baoji Xu, Discrete BDNF Neurons in the Paraventricular Hypothalamus Control Feeding and Energy Expenditure, Cell Metabolism Journal Volume 22, Issue 1, 7 July 2015, Pages 175–188

HC For WEIGHT MANAGEMENT

IMPROVED BODY COMPOSITION THROUGH REDUCED ADIPOSITY AND IMPROVED WEIGHT CONTROL*

- **Increased lean mass** causes increased **calorie burning** (muscle tissue burn over 90% of the Calories we consume)

- Both exercise and **heat exposure cause heat shock** and promote **mitochondrial biogenesis** (2–3-fold increases in muscle mitochondria) leading to increased muscle mass

* Tremblay A, Despres JP, Leblanc C, et al. Effect of intensity of physical activity on body fatness and fat distribution. Am J Clin Nutr 1990;51:153-7.Kelley, D.B., Goodpaster, B. Skeletal muscle fatty acid metabolism in association with insulin resistance, obesity and weight loss, American Journal of Physiology Vol 277, Dec. 1, 1999.

HC For WEIGHT MANAGEMENT

- Hyperthermic conditioning also had improving effects of mood such as anxiety, anger and irritability.

- There was no acceleration of appetite or abnormal feeding behavior during the treatment.

SADATOSHI BIRO, AKINORI MASUDA, TAKASHI KIHARA, AND CHUWA TEI1, Clinical Implications of Thermal Therapy in Lifestyle-Related Diseases, Department of Cardiovascular, Respiratory and Metabolic Medicine, Graduate School of Medicine, Kagoshima University, Kagoshima 890-8520, Japan

HYPERTHERMIC CONDITIONING IMPROVES DETOX PATHWAYS

SWEAT CLEANSING is SUPERIOR TO URINE for EXCRETION OF certain HEAVY METALS

500% **ALUMINUM** IS EXCRETED **5X GREATER** IN SWEAT THAN URINE.

1000% **CADMIUM** IS EXCRETED **10X GREATER** IN SWEAT THAN URINE.

1400% **LEAD** IS EXCRETED **14X GREATER** IN SWEAT THAN URINE.

*** Blood, urine, and sweat (BUS) study:** monitoring and elimination of bioaccumulated toxic elements. Genuis SJ1, Birkholz D, Rodushkin I, Beesoon S.Arch Environ Contam Toxicol. 2011 Aug;61(2):344-57. doi: 10.1007/s00244-010-9611-5. Epub 2010 Nov 6.

HYPERTHERMIC CONDITIONING IMPROVES DETOX PATHWAYS

Hyperthermic Conditioning may enable your body to **eliminate environmental toxins through sweat.**

15-20% OF **INFRARED SAUNA-INDUCED SWEAT** IS COMPOSED OF:

- CHOLESTEROL
- FAT-SOLUBLE TOXINS
- HEAVY METALS
- SULFURIC ACID
- AMMONIA

15%

HYPERTHERMIC CONDITIONING IMPROVES DETOX PATHWAYS

Certain chemicals (Cytokines) in the body lead to **INFLAMMATION.**

...some are known as **"OBESOGENS"** and cause **water retention and bloating,** leading to a greater number of **fat cells, stress hormones, endocrine disruption, lymph congestion.**

Sweating also eliminates **hormone-disrupting polycarbonateplastics (Bisphenol A)** which accumulates in your fat cells.

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HC HELPS IMPROVE SLEEP

HC helps normalize neurotransmitters (Serotonin, Dopamine, Endorphins, GABA, Melatonin) for improved relaxation and better sleep

Studies have shown that fatigue, sleep disturbance, pain were dramatically improved with HYPERTHERMIC CONDITIONING

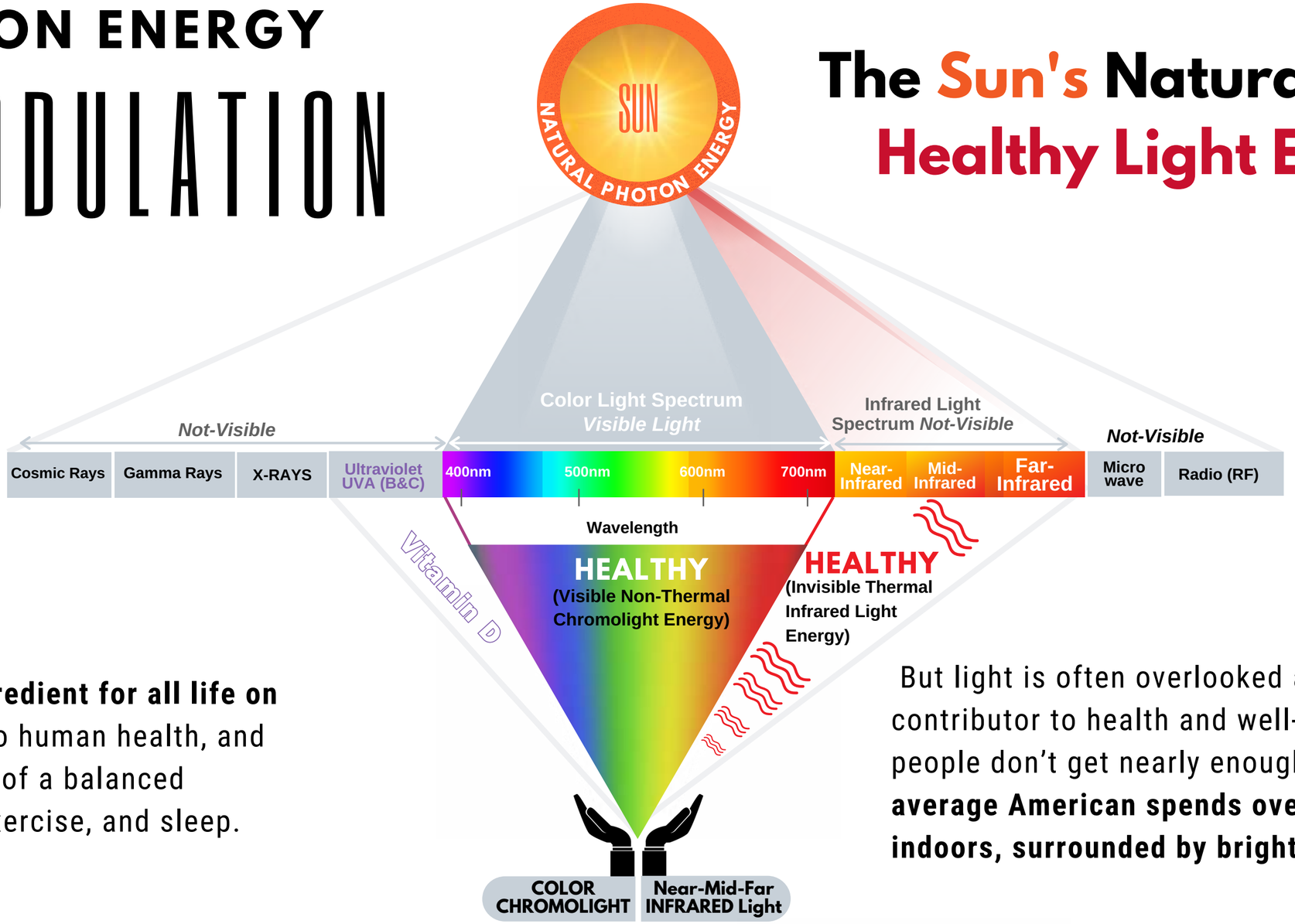
QUALITY SLEEP is also a crucial component to WEIGHT LOSS.

Sleep for 7-8 hours at night

PHOTON ENERGY

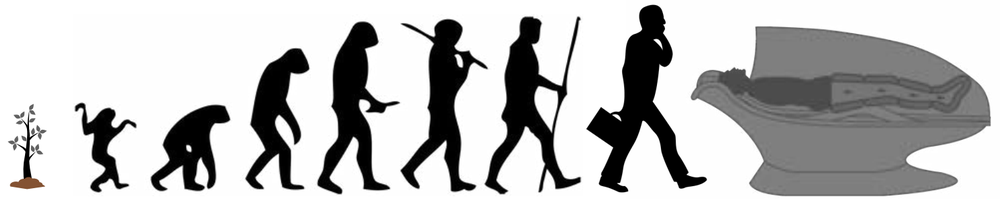
BIOMODULATION

The Sun's Natural Photon Healthy Light Energy



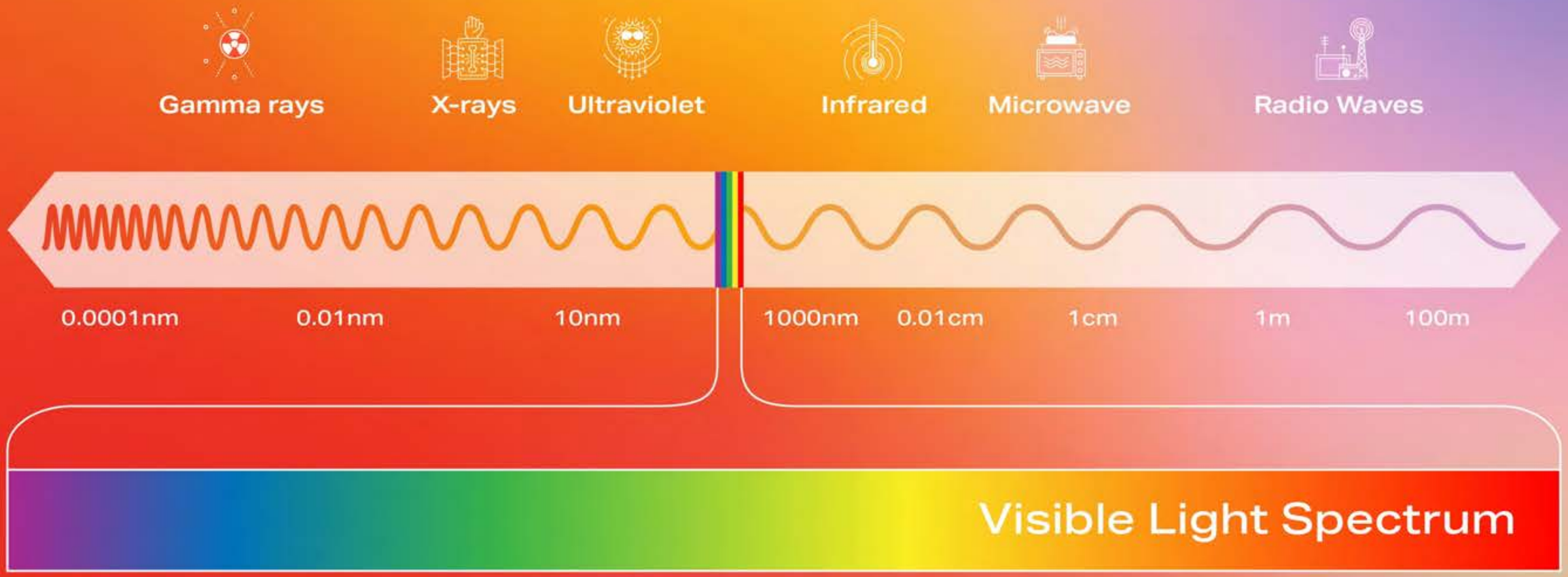
Light is an essential ingredient for all life on earth. It's fundamental to human health, and light is a key component of a balanced lifestyle, just like diet, exercise, and sleep.

But light is often overlooked as a major contributor to health and well-being. And most people don't get nearly enough sunlight: **the average American spends over 90% of their time indoors, surrounded by bright artificial light. [1]**



[1] KLEPEIS NE, NELSON WC, OTT WR, ET AL. THE NATIONAL HUMAN ACTIVITY PATTERN SURVEY (NHAPS): A RESOURCE FOR ASSESSING EXPOSURE TO ENVIRONMENTAL POLLUTANTS. JOURNAL OF EXPOSURE ANALYSIS AND ENVIRONMENTAL EPIDEMIOLOGY. 2001 MAY.

The benefits of light therapy—or PBM (Photobiomodulation) relate to how light energy impacts the body at the cellular level.



HEAT

RED LIGHT

THE WINNING COMBINATION OF **RED LIGHT** **INFRARED** DELIVERED SIMULTANEOUSLY

Rise in Body Core Temp stimulates an increase in all metabolic processes

The greater we stimulate our metabolism with HYPERTHERMIC treatments (to maximize biochemistry output results), it makes sense that will also achieve an uptake ratio increase and greater RedLight PBM biochemistry and increase in ATP outputs and benefit results.

HEAT

+

RED LIGHT

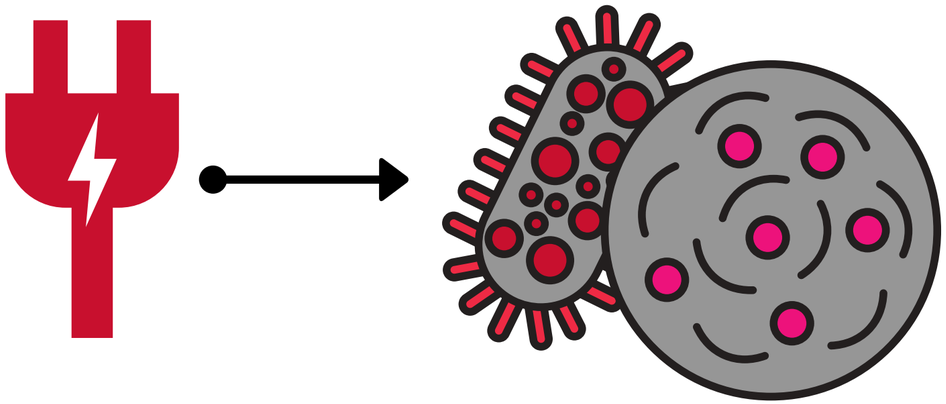
THERMAL AND LIGHT THERAPY ARE TWO CLINICALLY-PROVEN TO OFFER AMAZING BENEFITS.

Because saunas deliver energy in different forms and wavelengths, there is no effective overlap between the two therapies. They actually compliment each other quite well!

Therefore, as you continue your personal wellness journey, consider adding both light and heat therapy to safely and naturally enhance your overall health.

PBM literally feeds energy into our cells with photons from light, similar to natural sunlight.

This narrow band of wavelengths that can penetrate human tissue much more effectively, and scientists have discovered that some of these wavelengths have a unique ability to BOOST CELLULAR FUNCTION & ENERGY

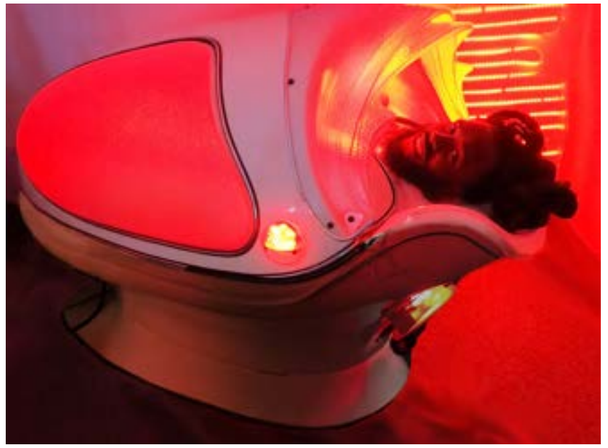


HEAT

+

RED LIGHT

A HEALTHY & HOLISTIC LIFESTYLE REWARDING YOU WITH WELLNESS & MEANINGFUL LONGEVITY.



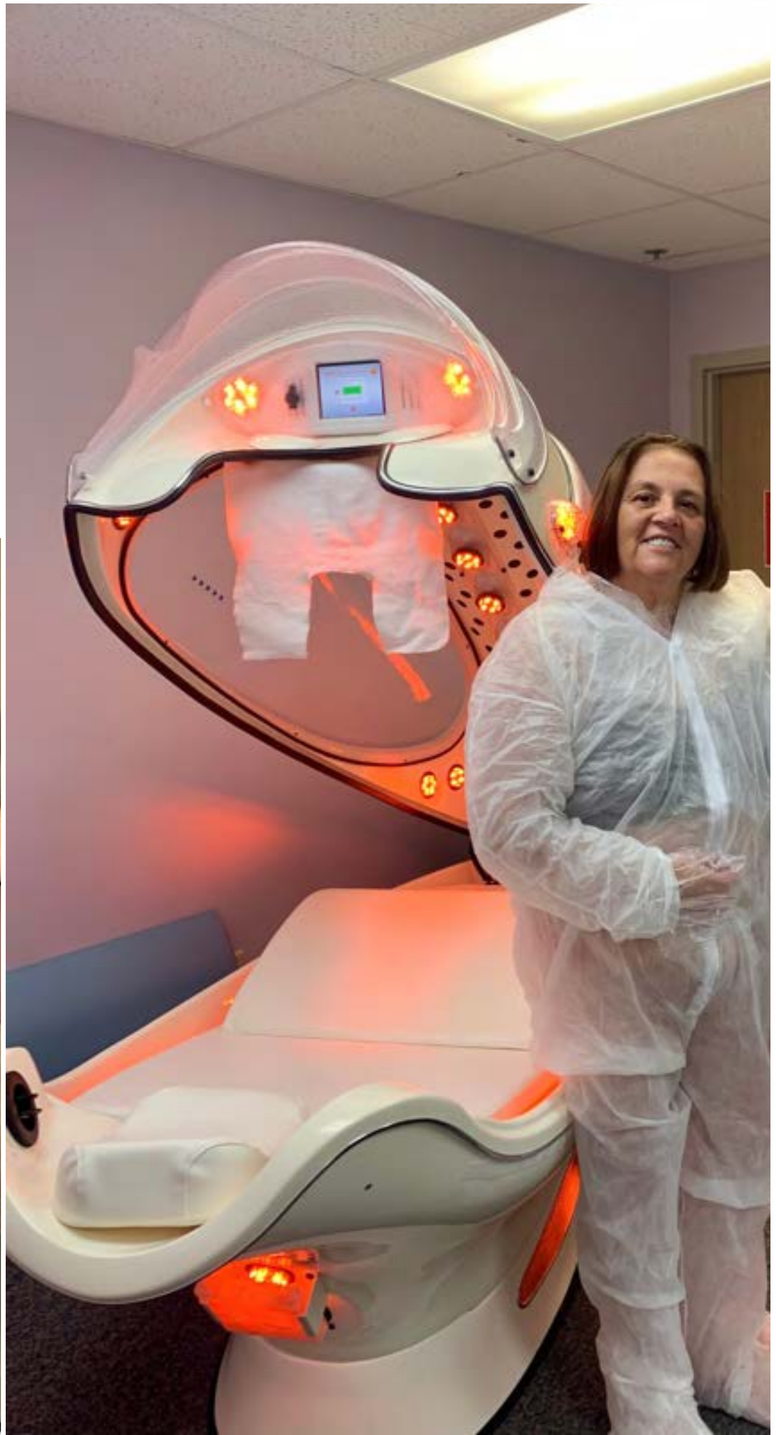
CUSTOMER SUCCESS

WEIGHT MANAGEMENT

Treatment Series:

12 sessions/ 3 x per wk

BEFORE AFTER



CORINNE L., AUGUST 2019

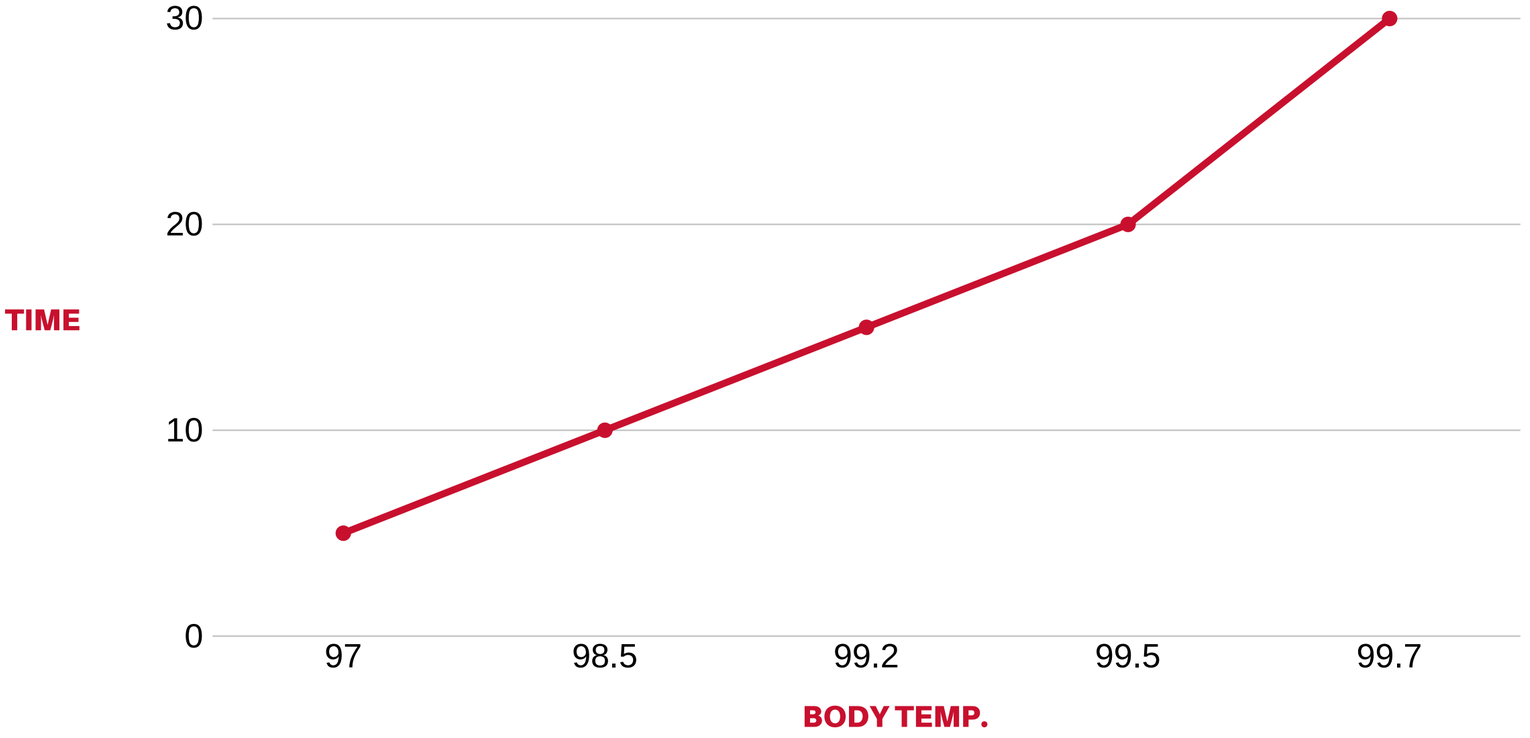
COCOON

HC SESSION CHART

NAME: CORINNE LAWRENZ

DATE: 8/12/19

TIME OF THE DAY
1PM



RESULTS

TEMP +/-
+2.7 F

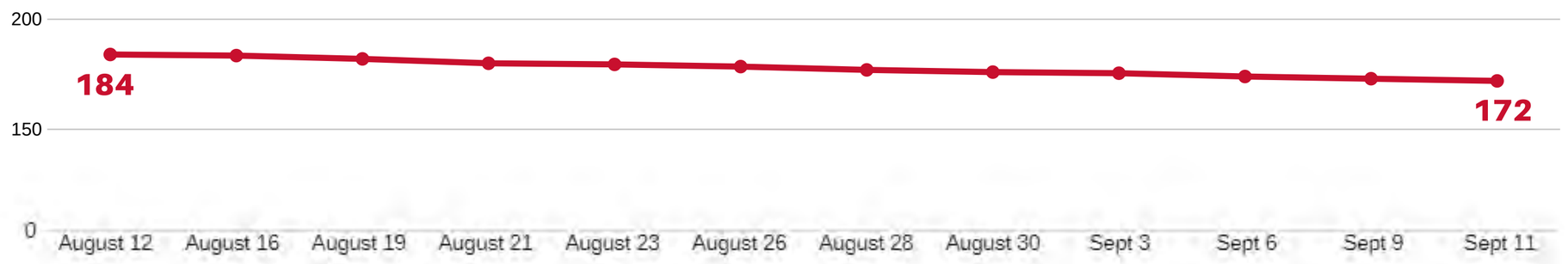
97-99.7 F.

NOTE: *COCOON TEMP 190F*

COCOON

WEIGHT CHART

NAME: CORINNE LAWRENZ



RESULTS

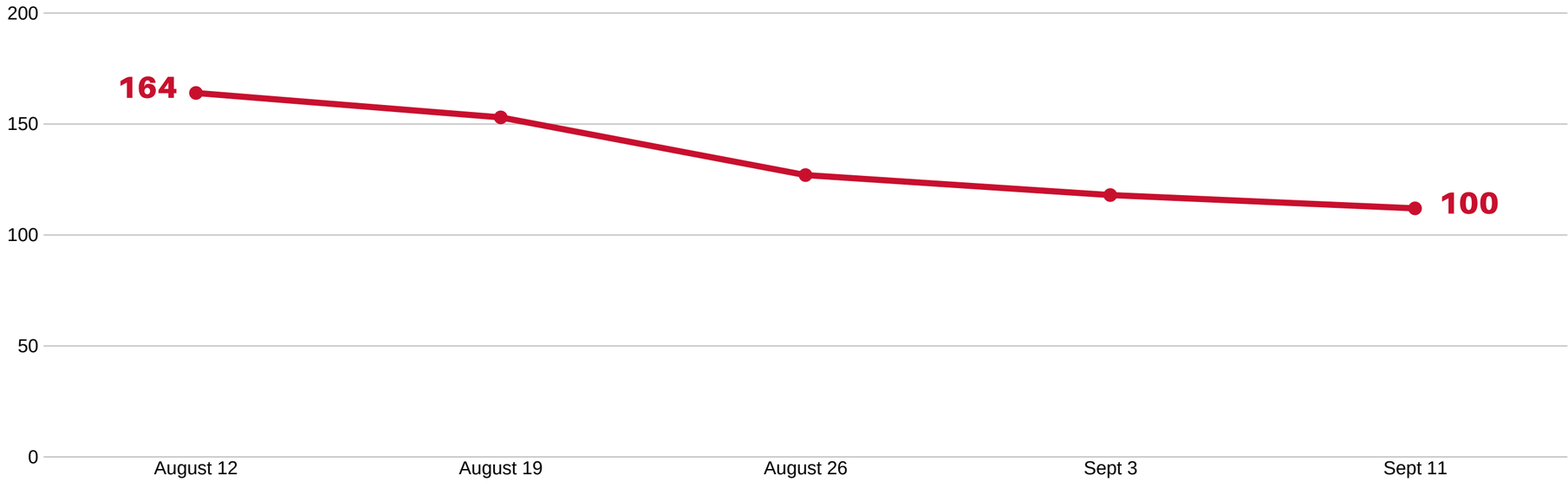
WEIGHT +/-

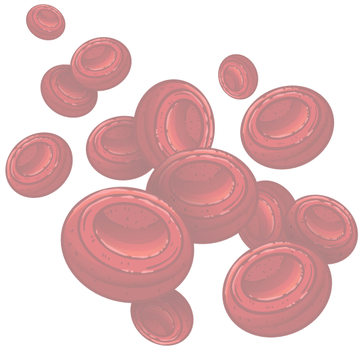
-12lbs

COCOON

BLOOD GLUCOSE CHART

NAME: CORINNE LAWRENZ





RESULTS

GLUCOSE +/-

-64

SEAN CHOI

FUTURE
LEGENDS II

MUAY THAI FIGHTER

RedFit™ Center
INFRARED WEIGHT MANAGEMENT + WELLNESS

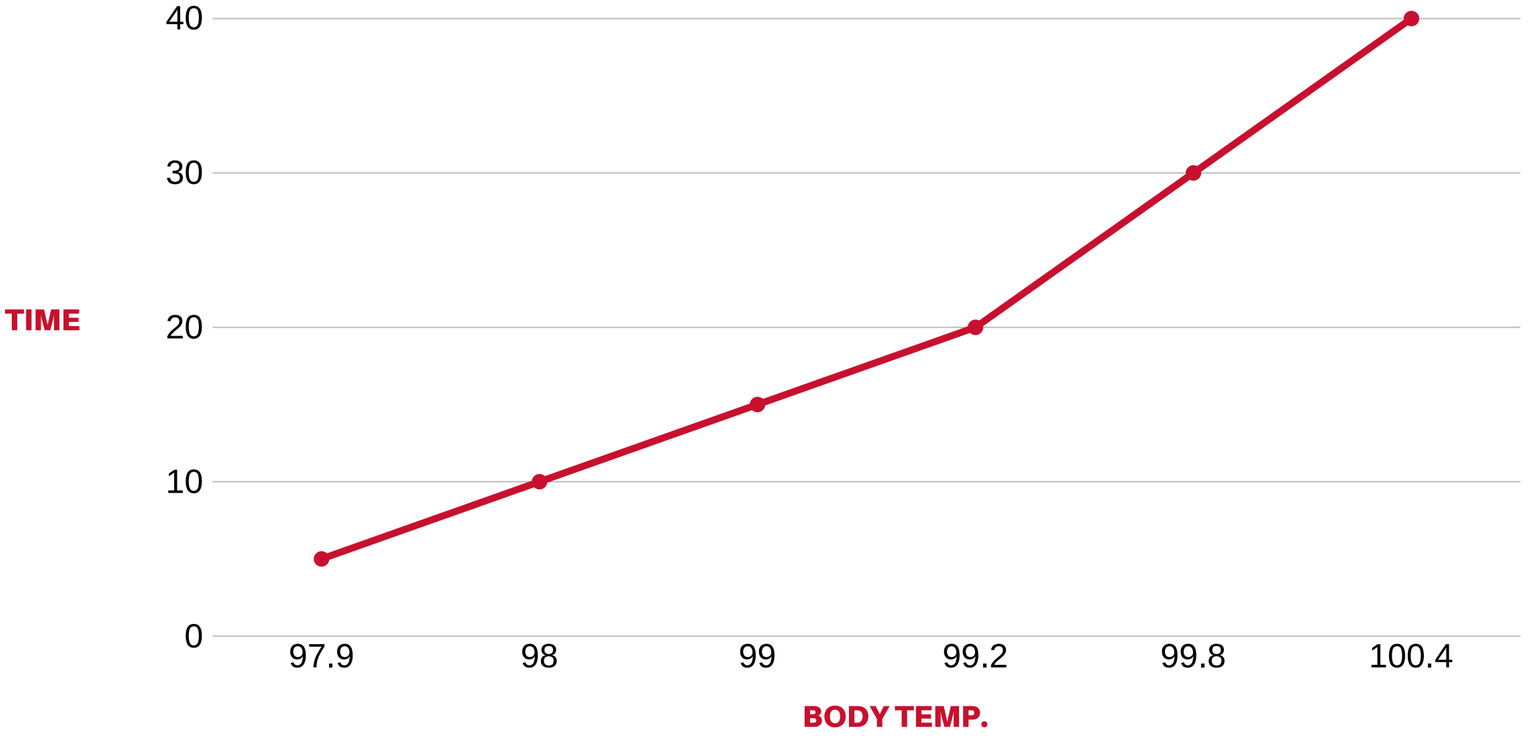
COCOON

HC SESSION CHART

NAME: SEAN CHOI

DATE: 4/18/19

TIME OF THE DAY
2PM



RESULTS

TEMP +/-	% +/-
+2.5 F	+25%

97.9-100.4 F.

NOTE: *COCOON TEMP 190F*

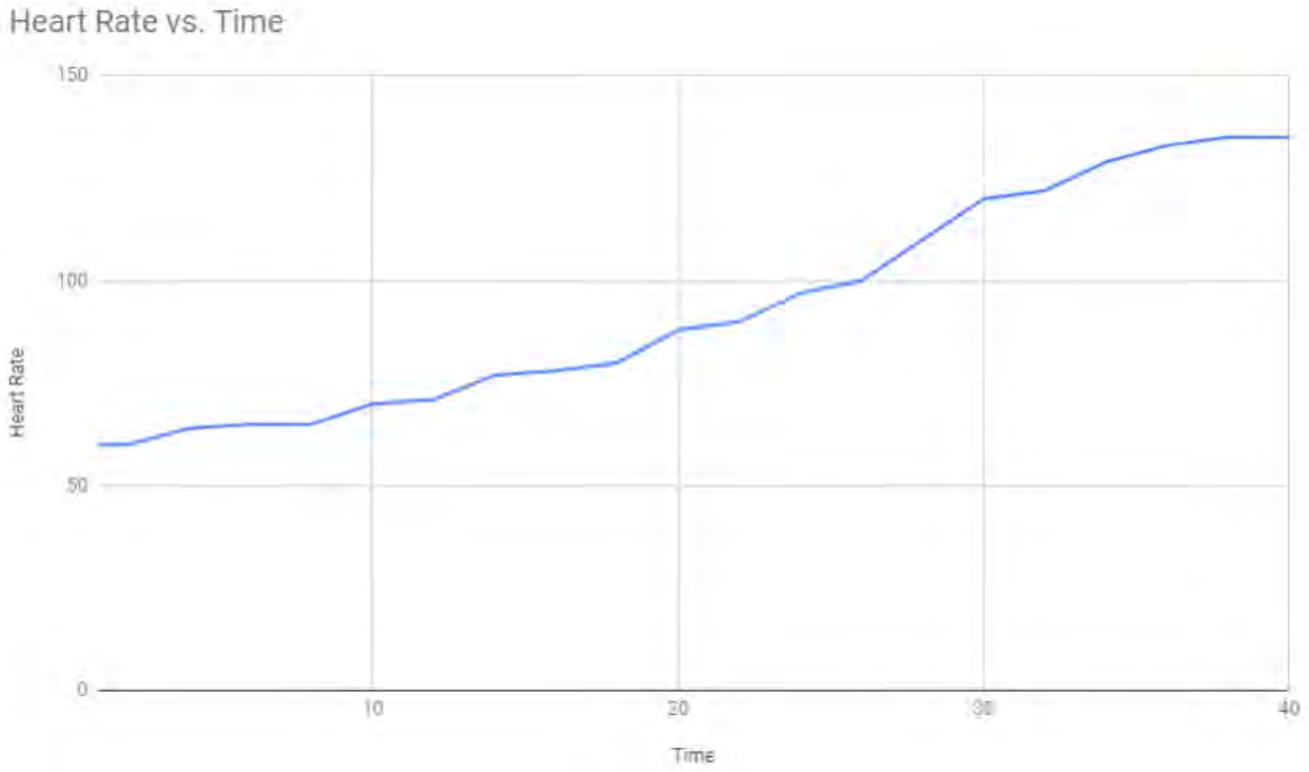
COCOON

HC SESSION CHART

NAME: SEAN CHOI

DATE: 4/18/19

TIME OF THE DAY
2PM



RESULTS

HR + / -	% + / -
+75	+55%

NOTE: *COCOON TEMP 190F*

60-135

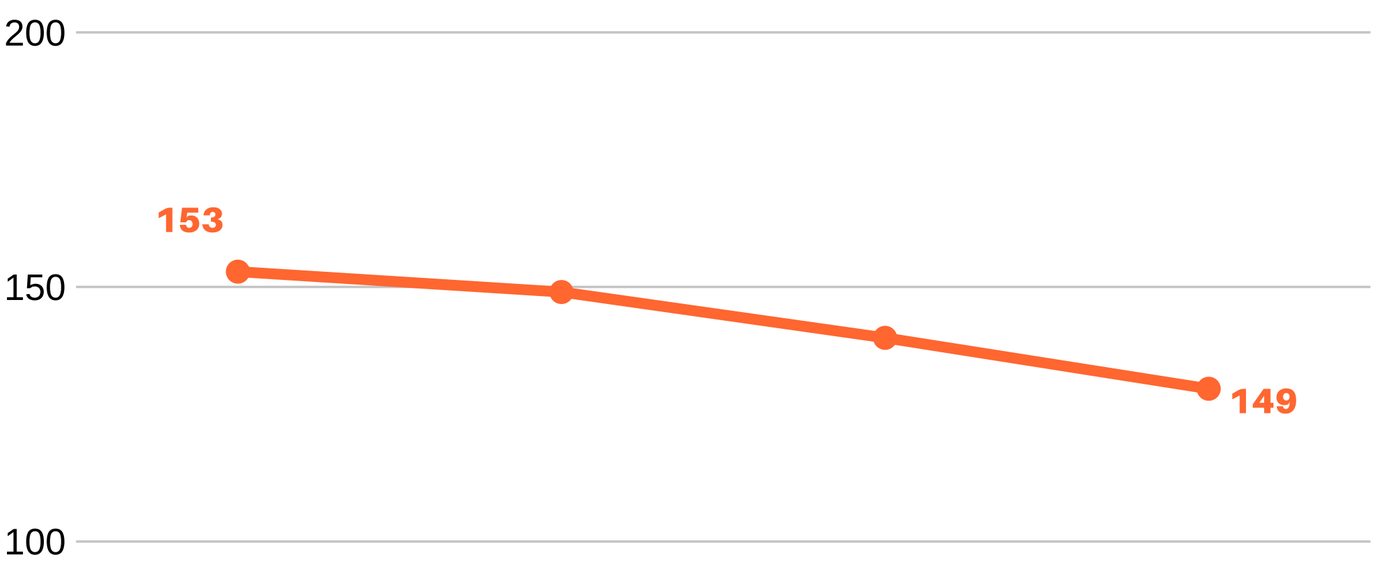
COCOON

HC SESSION CHART

NAME: SEAN CHOI

DATE: 4/18/19

TIME OF THE DAY
2PM



RESULTS

WEIGHT +/-	% +/-
-4lbs	-26.8%

CUSTOMER SUCCESS

WEIGHT MANAGEMENT

COCOON™
DELUXE FITNESS POD

Ongoing treatment:
6 sessions

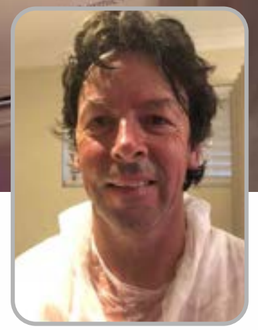
BEFORE AFTER

CUSTOMER SUCCESS

WEIGHT MANAGEMENT

COCOON™
DELUXE FITNESS POD

Brett R., April 2020_AUSTRALIA



BEFORE AFTER

BEFORE AFTER

“**In the next 10 years** sauna bathing *(sic **HYPERTHERMIC CONDITIONING**)* **will become part of the STANDARD OF CARE for the prevention and treatment for heart disease** and a variety of heart conditions.”

DR. RHONDA PATRICK, PHD

Renown Wellness & Longevity Expert

Mero et al. SpringerPlus (2015) 4:321
DOI 10.1186/s40064-015-1093-5

SpringerPlus
a SpringerOpen Journal

RESEARCH Open Access

Effects of far-infrared sauna bathing on recovery from strength and endurance training sessions in men

Antti Mero*, Jaakko Tornberg, Mari Mäntykoski and Risto Puurtinen

Journal of Thermal Biology 101 (2021) 103067

Contents lists available at ScienceDirect

Journal of Thermal Biology

journal homepage: www.elsevier.com/locate/jtherbio

Whole-body repeated hyperthermia increases irisin and brain-derived neurotrophic factor: A randomized controlled trial

Oleg Stanislavovich Glazachev [a,*], Maxim Andreevich Zapara [a], Svetlana Yuryevna Kryzhanovskaya [a], Elena Nikolaevna Dudnik [a], Eugeny Antonovich Yumatov [b], Davide Susta [c]

[a] IM Sechenov Moscow State Medical University, Physiology Department, Trubeckaya str, 8, bld.2, 119992, Moscow, Russia
[b] PK Anokhin Research Institute of Normal Physiology, Baltiyskaya str, 8, 125315, Moscow, Russia
[c] Dublin City University, School of Health and Human Performance, Glasnevin Campus, Dublin, Ireland

FEBS Letters 588 (2014) 517–530

FEBS Letters

journal homepage: www.FEBSLetters.org

1964–2014

Review

Contribution of small heat shock proteins to muscle development and function

Magda Dubińska-Magiera [a], Jadwiga Jabłońska [a], Jolanta Saczko [b], Julita Kulbacka [b], Teresa Jagla [c], Małgorzata Daczewska [a,*]

[a] Department of Animal Developmental Biology, University of Wrocław, 21 Sienkiewicza Street, 50-335 Wrocław, Poland
[b] Department of Medical Biochemistry, Medical University, Chałubinskiego 10, 50-368 Wrocław, Poland
[c] Institut National de la Santé et de la Recherche Médicale U384, Faculté de Medecine, Clermont-Ferrand, France

MAYO CLINIC

REVIEW

Cardiovascular and Other Health Benefits of Sauna Bathing: A Review of the Evidence

Jari A. Laukkanen, MD, PhD; Tanjaniina Laukkanen, MSc; and Setor K. Kunutsor, MD, PhD

Experimental Gerontology 154 (2021) 111509

Contents lists available at ScienceDirect

Experimental Gerontology

Review

Sauna use as a lifestyle practice to extend healthspan

Rhonda P. Patrick [a,*], Teresa L. Johnson [b]

Scientific Research Publishing

Health, 2020, 12, 14-26
https://www.scirp.org/journal/health
ISSN Online: 1949-5005
ISSN Print: 1949-4998

Passive Whole-Body Hyperthermia Increases Aerobic Capacity and Cardio-Respiratory Efficiency in Amateur Athletes

Maxim A. Zapara[1], Elena N. Dudnik[1], Vlada G. Samartseva[1], Svetlana Yu. Kryzhanovskaya[1], Davide Susta[2], Oleg S. Glazachev[1]

[1]Department of Normal Physiology, I. M. Sechenov First Moscow State Medical University (Sechenov University), Moscow, Russia
[2]School of Health and Human Performance, Dublin City University, Dublin, Ireland
Email: glazachev@mail.ru

frontiers in Physiology

REVIEW

Could Heat Therapy Be an Effective Treatment for Alzheimer's and Parkinson's Diseases? A Narrative Review

Andrew P. Hunt[1,2], Geoffrey M. Minett[1,2], Oliver R. Gibson[3,4], Graham K. Kerr[1,2] and Ian B. Stewart[1,2]*

[1] School of Exercise and Nutrition Sciences, Faculty of Health, Queensland University of Technology, Brisbane, QLD, Australia, [2] Institute of Health and Biomedical Innovation, Queensland University of Technology, Brisbane, QLD, Australia, [3] Centre for Human Performance, Exercise and Rehabilitation, College of Health and Life Sciences, Brunel University London, Uxbridge, United Kingdom, [4] Division of Sport, Health and Exercise Sciences, Department of Life Sciences, College of Health and Life Sciences, Brunel University London, Uxbridge, United Kingdom

Physiological Reports

Open Access

Physiological Reports ISSN 2051-817X

ORIGINAL RESEARCH

Once- and twice-daily heat acclimation confer similar heat adaptations, inflammatory responses and exercise tolerance improvements

Ashley G. B. Willmott[1], Mark Hayes[1], Carl A. James[1,2], Jeanne Dekerle[1], Oliver R. Gibson[3] & Neil S. Maxwell[1]

1 Environmental Extremes Laboratory, University of Brighton, Brighton, Eastbourne, United Kingdom
2 Institut Sukan Negara (National Sports Institute), National Sports Complex, Kuala Lumpur, Malaysia
3 Centre for Human Performance, Exercise and Rehabilitation (CHPER), Brunel University London, Uxbridge, United Kingdom

Medicine & Science IN Sports & Exercise

AMERICAN COLLEGE of SPORTS MEDICINE www.acsm.org

Combined Heat-acclimation And Exercise-training Improves Cardiac Mechanical And Metabolic Performance And Enhances Cardioprotection.

Kodesh, Einat; Horowitz, Michal; Levi, Einat

Medicine & Science in Sports & Exercise: October 2010 - Volume 42 - Issue 10 - p 40-41
doi: 10.1249/01.MSS.0000389633.00306.12

FRIDAY, SEPTEMBER 24, 2010, 1:00-3:00PM POSTER SESSION 2: Board #3: Cardiovascular Control and Adaptation to Exercise

Perceptual responses to passive heat therapy – towards more tolerable heating protocols using the Cocoon POD

Sven P. Hoekstra & Christof A. Leicht

The Peter Harrison Centre for Disability Sport, Loughborough University, UK

Wellness USA

Loughborough University
Peter Harrison Centre for Disability Sport