



**IS EXERCISE THE
IMMORTALITY PILL?**



WHO WE ARE

N⁺E

Nutrition . Fitness . Rehab

SPECIALIST





SONNY CHEW

Strength & Conditioning Coach
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WE BELIEVE

**Your greatest gift for
your loved one
is to take good care of
your health!**

HOW DOES EXERCISE MAKE US HEALTHIER?



A woman in a black leotard is performing a handstand on a large, reddish-brown rock. She is balanced on her hands, with her legs extended upwards and outwards. The background is a bright, hazy sky with soft clouds, suggesting a sunset or sunrise. The overall tone is warm and energetic.

HOW DOES EXERCISE MAKE US HEALTHIER?

“Physical exercise” promotes AUTOPHAGY responses in the cells of the body.

In short, **exercise** triggers a **clean-up** process in the cells of the body.

Source: Tam, B.T. & Siu, P.M. Sports Med (2014) 44: 625.

<https://doi.org/10.1007/s40279-013-0140-z>

WHAT IS **AUTOPHAGY**?

In the skeletal muscle, it is the process of recycling of broken down proteins to yield energy to support cell metabolism.

Source: Tam, B.T. & Siu, P.M. Sports Med (2014) 44: 625.
<https://doi.org/10.1007/s40279-013-0140-z>

MACROAUTOPHAGY?

The elimination of unwanted substances in response to physical exercise in skeletal muscle.

Source: Tam, B.T. & Siu, P.M. Sports Med (2014) 44: 625.
<https://doi.org/10.1007/s40279-013-0140-z>

SKELETAL MUSCLES

- Important for athletic **performance** &
- **Healthy** daily living and **aging!!**
- Constant **turnover** of muscle protein.
- Thus, **NUTRITION & EXERCISE** are crucial for **proper balance** of this important cell.

Source: Tipton, K.D., Hamilton, D.L. & Gallagher, I.J. Sports Med (2018)
48(Suppl 1): 53. <https://doi.org/10.1007/s40279-017-0845-5>

TOP 4 EPIDEMICS

Top 4 Conditions of Polyclinic Attendances			
	2015	2016	2017
Total No. of attendances ('000)	4874.7	5264.0	5925.8
% of All Diagnosis			
1. Hyperlipidemia	15.6	15.0	14.4
2. Hypertensive Disease	15.0	14.2	13.7
3. Diabetes Mellitus	9.3	9.2	9.2
4. Acute URTI	9.3	9.2	9.2

Source: <https://www.moh.gov.sg/resources-statistics/singapore-health-facts/top-4-conditions-of-polyclinic-attendances>

MOH RECOMMENDS

Current exercise recommendations by HPB...

- Lifestyle activity: everyday
- Aerobic activity: spread throughout the week
- Strength activity: 2 or more days per week
- For adults of age 19 – 49 & 50+

Source:

https://www.ntu.edu.sg/has/SnR/Documents/NPAG_Professional_Guide.pdf



WHAT TYPE?

Physical fitness components:

- Cardiorespiratory endurance
- Strength & musculoskeletal fitness
- Power
- Flexibility
- Balance

CARDIO

REVISED STANDARDS - 2.4KM RUN (FEMALE)											
Award (Female)	30 & under	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58 & above
Gold	13:10	13:20	13:30	13:40	13:50	14:00	14:10	14:20	14:30	14:40	14:50
Silver	15:30	15:40	15:50	16:00	16:10	16:20	16:30	16:40	16:50	17:00	17:10
Bronze	17:10	17:20	17:30	17:40	17:50	18:00	18:10	18:20	18:30	18:40	18:50

REVISED STANDARDS - 2.4KM RUN (MALE)											
Award (Male)	30 & under	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58 & above
Gold	10:50	11:00	11:10	11:20	11:30	11:40	11:50	12:00	12:10	12:20	12:30
Silver	12:10	12:20	12:30	12:40	12:50	13:00	13:10	13:20	13:30	13:40	13:50
Bronze	13:10	13:20	13:30	13:40	13:50	14:00	14:10	14:20	14:30	14:40	14:50

Source:

https://www.mesrc.net/sites/mesrc.net/files/Revised%20Standards%20w.e.f.%201%20Jan%202017_0_0.pdf

STRENGTH

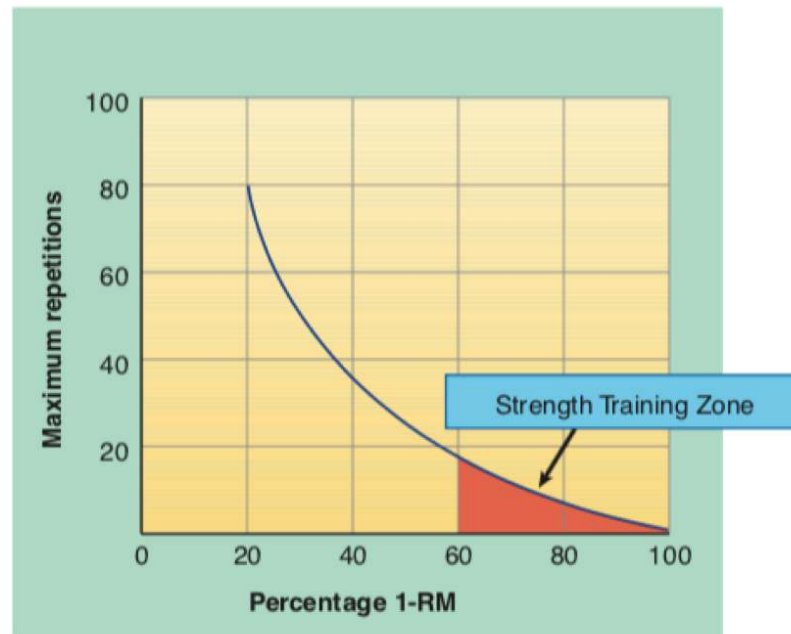


Figure 14.7 Relationship between maximum number of repetitions to failure and load at 20% to 100% 1-RM. (From Siff, M.C., Verkhoshansky, Y.V.: *Supertraining: Special Strength Training for Sporting Excellence*. Perry, OH: Strength Coach, Inc., 1997.)

Source: Essentials of Exercise Physiology, 4th Edn, McArdle, Katch & Katch, 2011

POWER



Source: <http://lifestyle.inquirer.net/259011/watch-chinas-hottest-grandpa-is-new-reebok-brand-ambassador/wang-deshun-hottest-grandpa/>

FLEXIBILITY

SIX KEY STRETCHING EXERCISES FOR RUNNERS

Priscilla Lam, a Pure Yoga instructor who has run four marathons, says a combination of dynamic and static stretching is best before a run to contract, relax and elongate muscles. She has designed the following pre-run stretching circuit to work the key muscle groups for running.

SUN SALUTATION

WHAT IT WORKS
Everything, with focus on strengthening the core, glutes and hip flexors, lengthening the hamstrings and calves, and opening the chest and shoulder to facilitate breathing. It also starts the breath flowing and increases mental clarity and focus - key ingredients for a run.

- 1 While standing, stretch arms straight up, look towards hands.
- 2 Keeping spine straight, lower torso. Place fingertips on floor, just outside the feet.
- 3 Rise to fingertips, straighten arms, and lift torso.
- 4 Place palms on floor. Step feet back into a plank and lower body into push-up position.
- 5 Press tops of feet into floor and raise torso. Hold for five breaths.
- 6 Return to starting position and repeat on other side.

HIGH LUNGE

WHAT IT WORKS
Abs, hip flexors, quadriceps, calves, plantar

Step right foot forward, aligning knee above ankle. Reach back through your left heel. Extend arms overhead, lift chest, and reach through your fingers. Hold for a few breaths. Repeat on other side.

TWISTED CHAIR

WHAT IT WORKS
Glutes, quadriceps, ankles, heels

Get into a semi-squat with palms together in front of chest. Twist torso towards left, placing right elbow on outside of left knee. Turn face and look up at ceiling, hold for three to five breaths. Repeat on other side.

ONE-LEGGED DOWN DOG

WHAT IT WORKS
Hamstrings, calves, core

1 Starting on your hand and knees, press up and straighten your legs to form an inverted V.

2 Lift left leg up in the air. Hold and breathe.

3 Lower leg, bending it and bringing knee towards right elbow, followed by left elbow. Repeat on other side.

TRIANGLE

WHAT IT WORKS
Quadriceps, hips, ankles, heels. It wakes up the spine, chest and circulation

1 Stand with feet wide apart. Reach arms out to the sides, palms down.

2 Turn left foot slightly to the right, and right foot out 90 degrees. Bending from hip joint, rest right hand on floor. Stretch left arm towards ceiling, in line with shoulders. Keep head in neutral position. Hold pose for a few breaths.

PHOTOS: MATTHIAS WEISKOPF GRAPHICS: LIM KHALI

Source: <https://www.ttsh.com.sg/about-us/newsroom/news/article.aspx?id=5348>

BALANCE



Source: http://www.acsm-iawhp.org/files/fit_fall2010.pdf

TAKEAWAYS

1

Balanced Meals with proper supplementation (where needed)

2

At least 30mins of exercise, 5x a week (>150min a week)

3

Engage us for your personalized solution



IT IS **HEALTH** THAT IS
REAL **WEALTH** AND NOT
PIECES OF GOLD AND
SILVER.

MAHATMA GHANDI

CONTACT



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**MANY
THANKS**