

# Pivotal Role of PHYSICAL EXERCISE in Supporting Geriatric Vitality

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### Penyakit terbanyak di Indonesia



Akar masalah:

### **GAYA HIDUP:**

- Kebiasaan makan
  - Pasif, mager
  - ≠ olahraga



**Obesitas** 

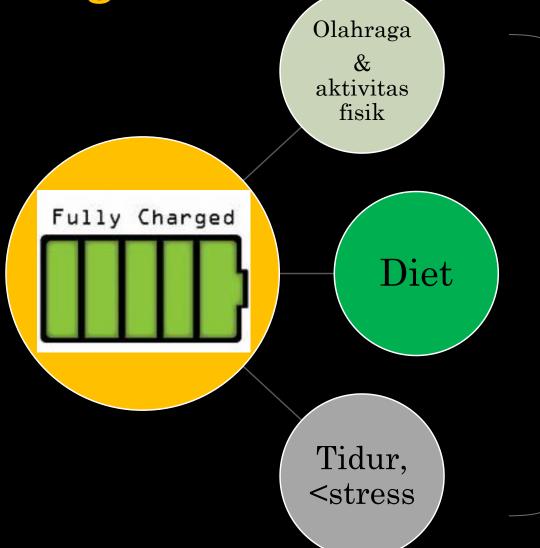
# Solusi



Kenapa PERLU olahraga?

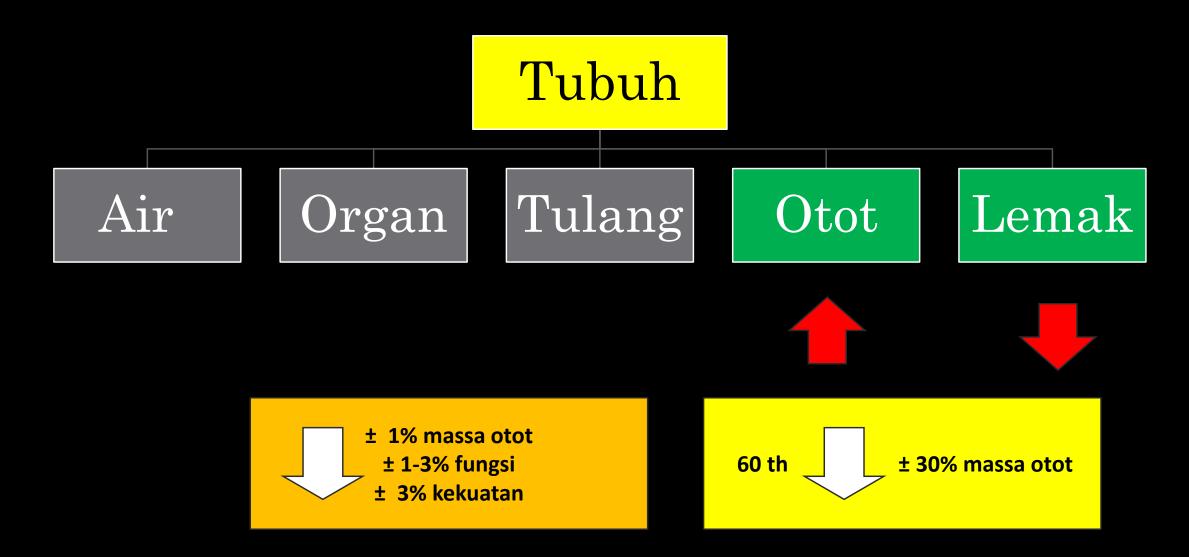






POLA HIDUP

# Target?



# Manfaat Olahraga untuk Lansia









< Gula, TG, Kol

< BB

**Jantung paru** 

**Postur** 

>> Tulang

Fleksibilitas & mobilitas

**Imunitas** 

< Nyeri

Mandiri

Relaksasi

>> Mood

>> Konsentrasi, memori

> PD

> Tidur

>> Target → makna

> Komunikasi

> Sosial

### A Systematic Review and Meta-Analysis of Resistance Training on Quality of Life, Depression, Muscle Strength, and Functional Exercise Capacity in Older Adults Aged 60 Years or More

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#### Abstract

**Background:** Aging is generally associated with numerous metabolic and physical changes that augment susceptibility to several chronic conditions, disability, and diminished quality of life.

**Objective:** The purpose of this meta-analysis was to investigate the efficacy of resistance training on quality of life, depression, muscle strength, and functional exercise capacity in older adults (≥60 years).

**Data sources:** A systematic search was conducted in PubMed, MEDLINE, Cochrane, Google Scholar, and Scopus up to December 20, 2021.

**Results:** 21 studies (N = 1610) were included. Resistance training significantly improved physical functioning (standard mean differences (SMD), 0.31; p = 0.02), mental health (SMD, 0.44; p = 0.001), bodily pain (SMD, -0.52; p = 0.004), general health (SMD, 0.43; p = 0.002), social functioning (SMD, 0.25; p = 0.006), and mental component score (SMD, 0.51; p = 0.001) subscales. Moreover, depression (SMD, -1.13; p = 0.01), upper-limb muscle strength (mean difference (MD), 15.26 kg; p = 0.002), lowerlimb muscle strength (MD, 48.46 kg; p = 0.02), and handgrip muscle strength (MD, 1.35 kg; p = 0.003) significantly improved following resistance training. No benefits were found for vitality, physical component score, total score of quality of life, and the 6-min walk distance.

**Conclusion:** Preliminary evidence reveals that resistance training can be effective for improving most domains of quality of life, upper- and lower-limb muscle strength, handgrip strength, and depression in aged people. More proof is hence needed to draw solid conclusions.

#### Keywords

randomized controlled trials, psychological health, exercise, elderly, performance

# Aerobic Versus Resistance Training Effects on Health-Related Quality of Life, Body Composition, and Function of Older Adults

Flávia Accioly Canuto Wanderley, Nórton Luis Oliveira, [...], and Joana Carvalho View all authors and affiliations

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#### **Abstract**

This study aimed to investigate the effects of training on health-related quality of life (HRQoL), body composition, and function in older adults. Fifty participants were randomized into aerobic training (AT—70%-80% HR<sub>reserve</sub>), resistance training (RT—80% 1RM), or controls. They had HRQoL, body composition, and function assessed before and after 8 months. Training groups reduced body fat, increased performance in the stair ascent, 8-ft up-and-go and sit-to-stand five-times tests, and improved their physical component score (PCS;  $p \le .03$ ). AT increased performance in the 6MWT test, and improved general and mental health (MH) domains when compared to controls (p < .01). Finally, changes in stair ascent were associated with changes in bodily pain, MH, and mental component score ( $p \le .04$ ), while changes in handgrip strength were associated with changes in physical role and MH (p = .03). AT and RT were effective interventions for decreasing body fat and improving functionality and the PCS in older adults.

### Effect of Aerobic Versus Anaerobic Exercise on Quality of Life in Stroke Patients

Mahmoud Y. Elzanaty<sup>1</sup>, Mai M. Gamal<sup>2</sup>, Gehan M. Ahmed<sup>3</sup>, Amira M. Abdel Rahman<sup>4</sup>, Rania M. Tawfik<sup>5,\*</sup>

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**Abstract** Background: Stroke is one of the world's leading causes of death and long-term lack of ability. Objectives: This study aimed to test the effect of aerobic versus anaerobic exercise on stroke patients' quality of life. Methods: Thirty male patients with stroke enrolled in this study. The patients were divided into three groups at random: two research groups (GA) and (GB) and one

compared with that of control group (GC) after therapy. However, there was no significant difference between groups in role limitations due to physical health and role limitations due to emotional problems. There was no meaningful difference in the quality of life items within groups (GA), (GB) after therapy. Conclusion: Eight weeks of training revealed non-significant difference between

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**BMJ** Open Diabetes Research & Care

### Effect of resistance training on HbA1c in adults with type 2 diabetes mellitus and the moderating effect of changes in muscular strength: a systematic review and meta-analysis

Anna K Jansson, 1,2 Li X Chan, 2 David R Lubans, 1,2 Mitch J Duncan, 2,3 Ronald C Plotnikoff (D) 1,2

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Additional supplemental material is published online only. To view, please visit the journal online (http://dx.doi. org/10.1136/bmjdrc-2021-002595).

#### **ABSTRACT**

Type 2 diabetes mellitus (T2DM) accounts for approximately 90% of diabetes cases globally. Regular physical activity is regarded as one of the key components in T2DM management. Aerobic exercise was traditionally recommended; however, there is a growing body of research examining the independent effect of resistance training (RT) on glycemic control. This systematic review and meta-analysis aimed to conduct an update on the effects of RT on glycosylated hemoglobin (HbA1c) in adults with T2DM and examine the moderating effects of training effect (ie, muscular strength improvements), risk of bias and intervention duration. Peer-reviewed articles published in English were searched across MEDLINE. Embase, CINAHL, Scopus and SPORTDiscus from database inception until January 19, 2021. Each online database was systematically searched for randomized controlled trials reporting on the effects of RT on HbA1c in individuals with T2DM. Twenty studies (n=1172) were included in the

the rise in diabetes cases; the driving key factors include an overall decrease in physical activity, greater consumption of imbalanced diet and an aging population.<sup>2</sup>

Type 2 diabetes mellitus (T2DM) accounts for the vast majority (85%-90%) of diabetes cases globally. In many cases, T2DM is largely preventable<sup>3</sup> and can often be managed through lifestyle modifications such as physical activity.<sup>4</sup> Traditionally, aerobic exercise was considered the gold standard for the management of T2DM.<sup>5</sup> However, in the past decade, there has been an increase in the number of studies demonstrating the independent benefits of resistance training (RT) in glycemic control.<sup>6–8</sup> While aerobic exercise (alone or in combination with RT)

# Contoh aktivitas fisik dan olahraga

- Jalan
- Bebersih rumah
- Memasak



- Lari
- Sepedaan
- Berenang
- Yoga
- Pilates
- Tai chi
- dll



**Fitness** 

3-4 x / minggu

2 x / minggu

# Kenapa orang tidak mau berolahraga?



### Bagaimana harapan tubuhmu di masa tua?



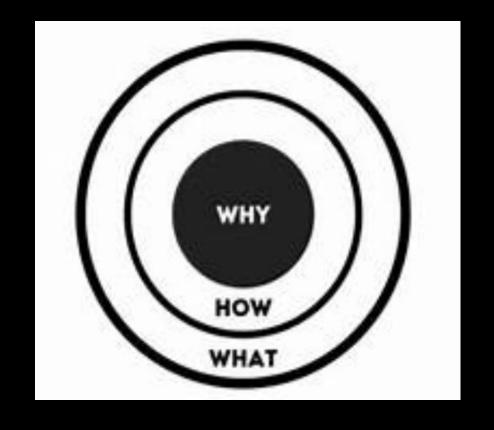












ALASAN

HAMBATAN &
STRATEGI

TARGET/GOAL
Spesifik

### Fokus pada TUJUAN AKTIVITAS > bentuk tubuh

### Target besar:

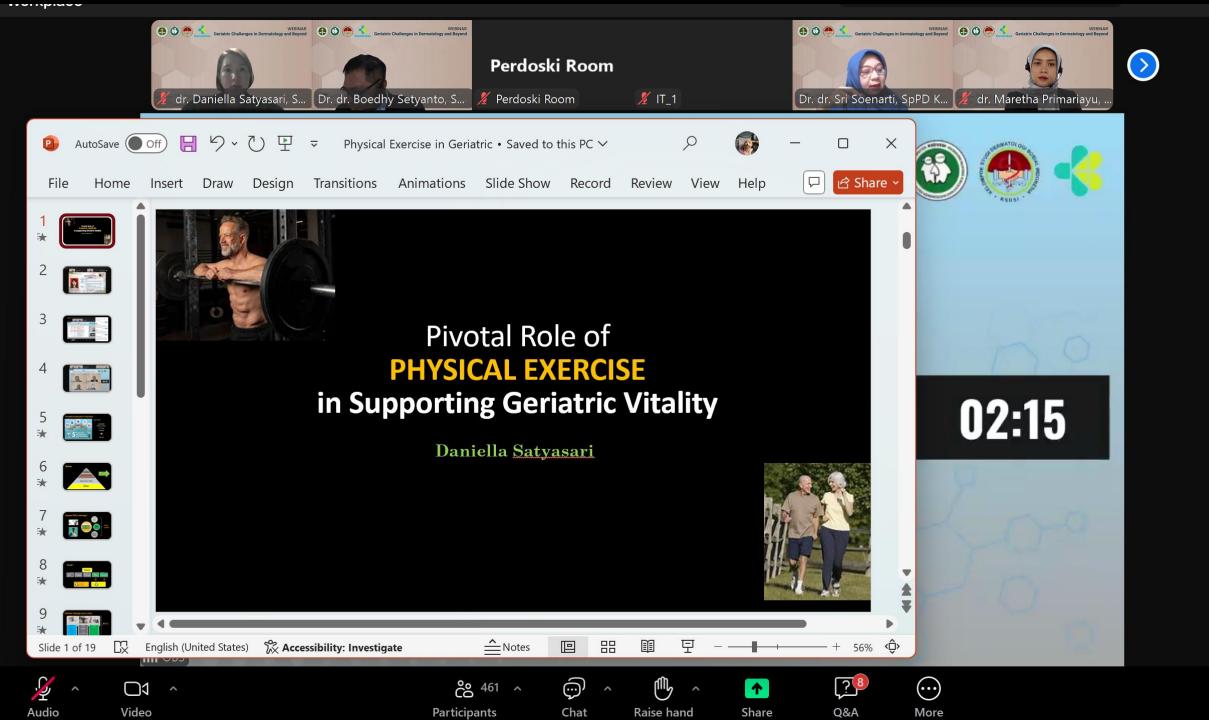
- Jalan 7500/hr
- Lari 3x/minggu
- -WT 3x/minggu

Februari	Senin	Selasa	Rabu	Kamis	Jumat	Sabtu	Minggu
Minggu I -Jalan 5000/hr -WT 1x/minggu	~	~	~	~	~	~	~
II -Jalan 5000/ <u>hr</u> -WT 1x/ <u>minggu</u>							
III -Jalan 5500/ <u>hr</u> -WT 2x/ <u>minggu</u>							
IV -Jalan 5500/ <u>hr</u> -WT 2x/ <u>minggu</u>							

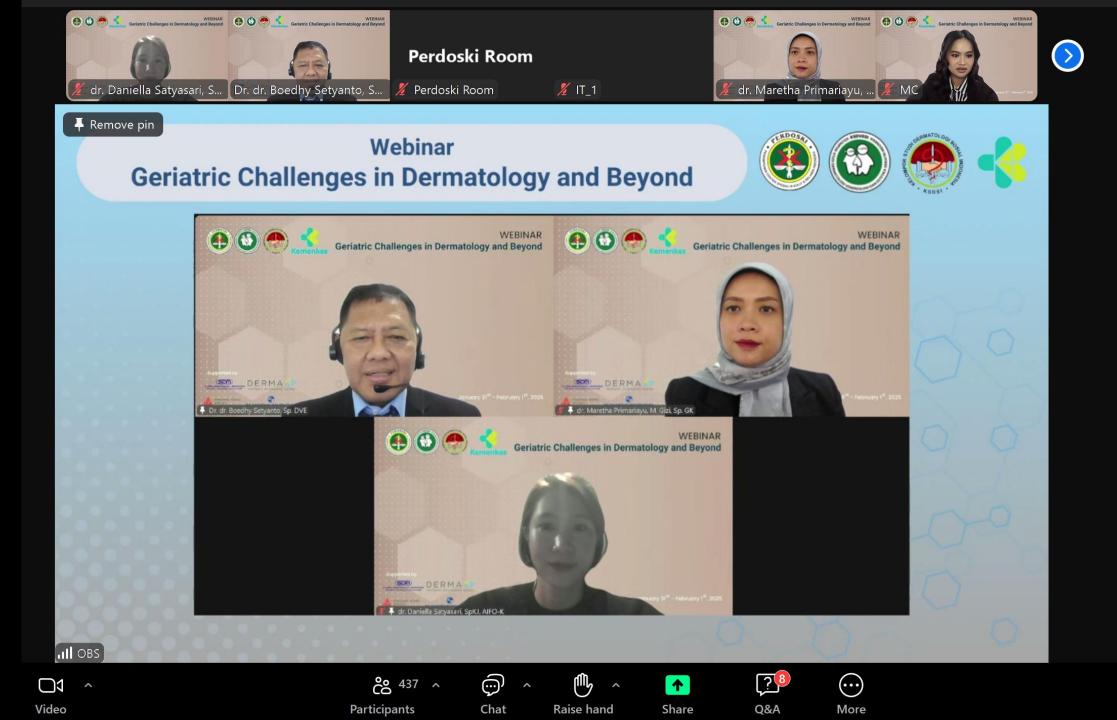
# Your body reflect your lifestyle

Lets do this together!
Be active, exercise and eat healthy

#AdaWaktuKok









#### Perdoski Room







### Webinar **Geriatric Challenges in Dermatology and Beyond**











02:43