## PHYSICAL ACTIVITY AND NUTRITION FOR LONGEVITY

Prof. Francesco Bove
President Aila Foundation
UniCamillus
Istituto Italiano di Cultura – New York – October 1st 2025

#### Slide 1

1. Physical activity and nutrition for longevity

## Slide 2

2. Today, I'd like to talk to you about a topic that concerns each of us personally: the benefits of physical activity and proper nutrition for longevity, in an era where life expectancy continues to rise.

The aging of the global population is well known and constantly evolving.

Italy is one of the countries with the highest percentage of elderly people in the world, second only to Japan.

It has a population of 58,971,320 people (ISTAT Italian National Institute of Statistics – December 31, 2023).

#### Slide 3

3. Currently, 24.7% of the Italian population is over the age of 65, and 7.7% are over 80.

This is mainly due to the decline in birth rate (1.1%) and the increase in life expectancy (men: 81.4 years – women: 85.5 years, ISTAT 2024).

According to the ISTAT, it is projected that by 2050, the population will age significantly, with people over 65 making up 34%, and more than 10% being over 80.

4. A person's well-being is determined by the integrity and proper functioning of the human body.

But the question we should ask ourselves is not just "How long will we live?", but above all:

"How well will we live?"

A long life only has value if it is also a healthy life — with a body and mind capable of functioning well, adapting, and enjoying relationships and daily activities.

This talk aims to explore strategies to face the complex challenges of an aging population and to ensure a sustainable future for our societies.

## Slide 5

5. A person's well-being is determined by the integrity and proper functioning of the human body, and lifestyle choices represent one of the key factors to invest in health and face longevity as an achievement.

Among these lifestyle factors, physical activity and nutrition can become two fundamental pillars for living not only longer, but better.

1. Physical activity: not just movement, but active prevention

Let's start with the first pillar: physical activity.

6. Sport is often associated with something tiring, reserved for the young or for those who have a lot of free time. But reality is quite different.

Movement is a form of preventive medicine — accessible, natural, and without side effects.

Let's take a look at some of its key benefits:

- Reduces the risk of chronic diseases such as type 2 diabetes, high blood pressure, cardiovascular diseases, and certain types of cancer.
- Strengthens the immune system, making the body more resistant to infections.
- Improves mental health, reducing anxiety, stress, and depressive symptoms, thanks to the production of endorphins, known as the "happiness molecules".
- Preserves muscle mass and bone density, which are essential to prevent falls, fractures, and osteoporosis, especially in older age.
  - Improves sleep quality and cognitive functions.

# Slide 7

- 7. There are three main types of physical activity:
  - 1. Aerobic
  - Anaerobic
  - 3. Alternating aerobic and anaerobic

8. The first refers to rhythmic, prolonged, general activities such as running, brisk walking, cycling, swimming, dancing, cross-country skiing, and aerobic workouts at the gym.

This is the most suitable type of exercise for everyone, as intensity can be adjusted and no special skills or talents are required.

It uses oxygen to produce energy and enhances capillarization — the opening of peripheral shunts that deliver nutrients to all body tissues, supporting overall bodily function.

It involves large muscle groups and improves cardiovascular and respiratory function.

It also helps with weight loss, reducing the risk of metabolic diseases such as diabetes and hypertension, and helps lower cholesterol.

### Slide 9

9. Physical activity should ideally begin at a young age, according to one's own aptitudes and abilities.

It's important to choose physical activities that you enjoy and that suit your individual capabilities, and to continue practicing them over the years within your means, while following some fundamental guidelines — and consulting a doctor before starting any new program.

1) Start with moderate activity and gradually increase the intensity and duration.

This follows a key training principle: consistency and progression. Improvements should be consolidated before moving on to higher intensity levels.

- 2) Choose activities you enjoy and can do regularly.
- 3) Listen to your body and don't overdo it.

Exercise in suitable temperatures with appropriate clothing. Avoid exercising in extreme heat or cold, and in those cases, prefer indoor activities.

4) Find the right motivation — doing activities with another person or in a group can help you stay engaged.

This type of activity is especially recommended for those who want to maintain physical fitness in order to carry out everyday tasks without losing muscle tone and flexibility, both essential for functional independence, especially for those living alone.

## Slide 10

# 10. Anaerobic activity

This type of training is best suited for adults under 60 who are still engaged in specific sporting activities.

Anaerobic exercise does not use oxygen during the movement itself. It consists of short, intense, explosive efforts, and usually follows more demanding training protocols suitable for athletes, many of whom still practice at a competitive level.

Typical anaerobic activities include sprinting or any sport that requires bursts of effort lasting just a few seconds, such as certain track and field events — like high jump or short-distance races.

# 11. Alternating aerobic and anaerobic activity

This is a specific training method that provides benefits for both muscular strength and muscular power.

A typical example is interval training, such as alternating running with walking.

Other examples include skill-based sports like basketball, football, or volleyball.

This type of training is recommended for those who have practiced a sport in the past and, despite maintaining a certain level of skill, must now adapt their activity level to their changing physical capacity over time.

#### Slide 12

# 12. Nutrition: Quality Fuel for a Long Life

Let's now turn to the second major ally of longevity: nutrition.

"We are what we eat", says a famous saying. And never has it been more true than today.

A balanced diet not only helps us stay in shape, but is also a powerful tool to protect our health over time.

#### Slide 13 and 14

# 13. E 14. Follow a Mediterranean Eating Style

The Mediterranean diet is now recognized by many scientific studies as one of the healthiest dietary models in the world.

Rooted in a rich cultural tradition, this diet is characterized by:

- A high intake of plant-based foods: vegetables, fruits, whole grains like whole wheat bread, pasta, and brown rice, and legumes such as lentils, chickpeas, and beans
  - Nuts like walnuts and almonds
  - Olive oil as the main source of healthy unsaturated fats
  - Regular consumption of fish and seafood
  - Poultry and eggs in moderate amounts
  - Dairy products like yogurt and cheese in small to moderate quantities

The Mediterranean diet is a balanced and sustainable nutritional model — a true lifestyle, not just a way of eating.

It's not about following rigid diets, but about making conscious daily choices, listening to your body and respecting its natural rhythms.

Water plays a fundamental role in cellular nourishment.

It is essential to drink at least one liter of water per day, paying attention to labels to choose the type best suited to your physical needs.

15. Sugar consumption should be limited by avoiding sugary drinks, desserts, and processed foods with high sugar content.

Again, check the labels carefully.

Excess sugar intake can lead to:

- Obesity
- Type 2 diabetes
- Cardiovascular diseases
- Tooth decay
- Premature skin aging
- Mood swings, concentration issues, and memory problems

## Slide 16

16. The Synergy Between Movement and Nutrition

What's truly interesting is that physical activity and nutrition don't work in isolation — it's in their combination that the best results are achieved.

### Think about it:

Physical activity stimulates the metabolism, but it needs the right nutrients to build, repair, and regenerate the body.

At the same time, a healthy diet provides the energy and nutrients necessary for movement, while also improving muscle recovery and resistance to fatigue.

Together, these two factors:

- Increase healthy life expectancy the number of years lived in good health
  - Reduce the risk of chronic and disabling diseases
- Improve quality of life, promoting independence, vitality, psychological well-being, and social relationships

#### Slide 17

#### 17. The Data Confirms It

Numerous scientific studies support these claims.

For example, a study published in The Lancet showed that just 15 minutes of physical activity per day can increase life expectancy by 3 years.

Another study, published in the New England Journal of Medicine, highlighted that following a Mediterranean diet reduces cardiovascular risk by 30%.

18 Moreover, the so-called "Blue Zones" of the world — like Okinawa in Japan, Ikaria in Greece, and Sardinia in Italy — where people live longer and healthier lives, all share a common denominator:

- An active lifestyle
- A simple and natural diet
- And strong social connections

## Slide 19

19. Conclusion: Longevity Is a Daily Choice

In conclusion, longevity is not just a matter of genetics, but is deeply connected to the choices we make every day.

Moving our bodies, eating well, getting enough sleep, and nurturing healthy relationships — all of these contribute not only to a longer life, but a better, more autonomous one.

You don't need to be perfect.

What you need is consistency, awareness, and above all, self-love.

Taking care of your body and your nutrition is not a burden — it's an act of respect for your own life, and a way to face longevity as an achievement, not as a burden.

### Slide 20

Thank you for your attention.