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ESTABLISHING MUSCLES THROUGH DIET AND EXERCISE

Muscles not only provide overall structural support, protect our spine, and maintain trunk stability, enabling us to maintain correct posture daily, enhance athletic performance, and reduce the risk of injury. Establishing muscles requires not only engaging in exercise training but also adjusting dietary habits. This issue will explore how to build muscles from the perspectives of diet and exercise.

EXERCISE

Engaging in "muscle training" can strengthen muscles. Muscle training refers to activities that increase skeletal muscle volume, strength, endurance, or explosiveness. The aim is to focus on improving muscle strength, muscle endurance, and bone density, different from activities performed in daily life.

Regular muscle training has numerous benefits for physical and mental health, including:

- Aiding in controlling blood pressure and blood sugar
- Reducing chronic muscle and joint pain
- Preventing and improving muscle atrophy and osteoporosis
- Decreasing the risk of falls and injuries
- Maintaining correct body posture and improving physique
- Promoting physiological function and health
- Reducing anxiety and depressive emotions and enhancing mental health

To learn more about muscle strengthening exercises

Scan the QR code

Examples of "muscle training" include

Pull-ups

stair climbing

dumbbell exercises

Resistance band exercises

DIET

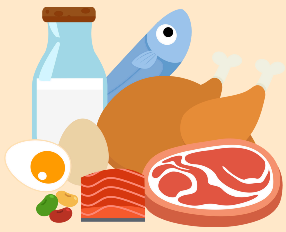
In addition to aging and low physical activity, insufficient intake of calories and protein can also lead to muscle loss. The synthesis, growth, and breakdown metabolism of muscle cells require different nutrient support, making adequate nutrient intake crucial in the process of increasing muscle mass.

Nutrients for Exercise

Carbohydrates

- Carbohydrates are the primary energy source for the brain and muscles.
- They are the main "fuel" during high-intensity exercise.

Protein



- Protein serves as the building blocks of body cells, and energy from protein is required when muscles contract during exercise.
- It aids in repairing damaged muscle fibers post-exercise.

Fat

- During exercise, if muscle glycogen stores are low, the body can utilize fats to provide energy.
- They are the main "fuel" during low to moderate-intensity exercise.

Adequate Protein Intake

Sources of Protein

- Meat
  - Such as fish, chicken, beef, pork
- Dairy Products
  - Such as milk, cheese, yogurt
- Soy Products
  - Such as tofu, soy milk
- Seeds
  - Such as pumpkin seeds, sunflower seeds, chia seeds
- Nuts
  - Such as walnuts, peanuts, almonds, cashews
- Seafood
  - Eggs

Daily Protein Requirement

Daily protein intake should account for 10% to 15% of the total daily energy requirement. The amount of protein needed per day varies based on factors like body weight, activity level, and individual factors. Here is a general reference for different groups:

	Protein per kilogram of body weight	Example: Protein requirement for a person weighing 55 kg per day
Adults	0.8g	44 g
Aged 65 or over	1-1.2g	55-66 g
Individuals aiming to increase muscle mass	1.2-1.7g	66-93.5g

References:
The University of Hong Kong Li Ka Shing Faculty of Medicine
Centre for Health Protection
European Society for Clinical Nutrition and Metabolism

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