



# THE EFFECTS OF... EXERCISE ON METABOLISM



**Metabolism is all the chemical processes in your body that convert food into energy. It includes:**

- **Basal metabolic rate (BMR)** – calories burned when you are resting.
- **Thermic effect of food (TEF)** – calories burned digesting food.
- **Physical activity** – calories burned during movement and exercise.

**Exercise affects metabolism in the following ways:**

### Immediate effects:

- Increases the number of calories burned during activity.
- Elevates metabolism for hours after exercise (this is called excess post-exercise oxygen consumption, or EPOC).



### Long-term effects:

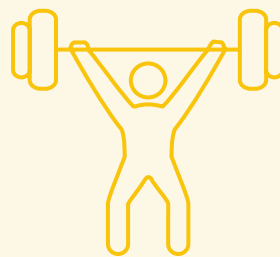
- Builds muscle mass, which increases BMR.
- Improves mitochondrial function. This enhances energy production because the mitochondria are the powerhouses of cells.
- Increases overall daily energy expenditure.

### Aerobic exercise (cardio)

Improves cardiovascular (heart) health.

Increases endurance and stamina.

**Examples: running, cycling, swimming.**



### Resistance (weight) training

Builds muscle mass.

Increases strength and bone density.

**Examples: weight lifting, bodyweight exercises.**

## Types of exercise and their impact

### High-Intensity Interval Training (HIIT)

Combines bursts of intense activity with rest periods.

Highly effective for boosting metabolism.

**Examples: sprint intervals on treadmill or row machine, a circuit training class.**



### Flexibility and balance exercises

Improves overall mobility and reduces injury risk.

**Examples: yoga, stretching, Pilates.**

## Here are some tips for boosting your metabolism through exercise:

### 1 Consistency is key

- › Aim for regular exercise, at least 150 minutes of moderate activity per week. This could look like 30 minutes on five days per week or 50 minutes on three days per week.
- › You can gauge the intensity of your workout by using the “talk-sing test”. To achieve a moderate level of intensity, you should be able to talk during exercise, but singing would be difficult.

### 2 Mix it up

- › Combine different types of exercise. This prevents boredom and keeps you on track.
- › For example, you may walk a few days per week and go to a group exercise class or do a YouTube strength workout video on others.

### 3 Progressive overload

- › **Gradually** increase intensity or duration. This challenges your body while preventing injury.

### 4 Don't skip weight training

- › Don't underestimate the power of strength training! Maintaining muscle requires more energy than maintaining fat – even when you're resting – so **increased muscle mass can increase your metabolic rate**.

### 5 Get enough sleep

- › Quality sleep is crucial to power your workouts and support your metabolism and recovery.

### 6 Stay hydrated

- › Proper hydration supports metabolic processes. Read the “**Hydration**” leaflet for more info.

### 7 Fuel your body

- › Eat a balanced diet to support your exercise routine. Learn more in “**Macros and Meal Planning**”.

Exercise is a powerful tool for improving your metabolism and overall health. By incorporating regular physical activity into your lifestyle, you can enhance your body's ability to efficiently use energy, improve your fitness, and support long-term well-being.

Speak to the **ZUPREME Trial Team** for further exercise support.

