Cardiorespiratory Fitness (CRF) and VO₂ Max

Cardiorespiratory fitness, or CRF for short, is the ability of the circulatory and respiratory systems to supply oxygen to skeletal muscles during sustained physical activity. Measuring VO₂ max, or how much oxygen a person can utilize during intense exercise, is the most precise measure of CRF.

Studies have shown activities getting the heart pumping and the body moving improve CRF with high intensity activity being the most effective.

The New Vital Sign

In 2016, the American Heart Association advocated that CRF be categorized as a clinical vital sign and be routinely assessed as part of clinical practice.

Typical VO₂ Max Levels

- Inactive Adults: 30-35
- Active Adults: 40-45
- Active Younger Adults: 40-50
- Athletes: 55-70

How PAI works

1. A wearable with the PAI app monitors daily physical activity.
2. PAI measures the intensity of your activities and converts heart rate data to a score.
3. PAI calculates your PAI score over a rolling 7-period and your VO₂ max.

Simple
- Makes sense of heart rate data and translates it into one number.

Personal
- Customised to your unique makeup and lifestyle and adapts as you progress.

Universal
- Measures all types of activity and works for all fitness levels.

Motivating
- Provides proactive engagement with real-time feedback on the health effects of physical activity.

Benefits of a Weekly 100 PAI

At 0 PAI
- These age groups were at higher risk of contracting cardiovascular disease than their counterparts who maintained a Weekly 100 PAI score.

- Increased CVD mortality risk by:
  - 76% Young Adults
  - 106% Older Adults

At 100 PAI
- Maintaining a Weekly 100 PAI score reduces CVD risks for people who are:

  - Reduced CVD mortality risk by:
    - 30.5% Overweight
    - 31.5% Hypertension
    - 54% Type 2 Diabetic
    - 31.5% Smokers

Achieve PAI with:

- 150 mins. of Moderate activity
- 75 mins. of Intense Activity

Every PAI point is progress towards a healthier heart.

Put Your Heart In It

The published research studies overwhelmingly found that people who maintain an optimal PAI Score of 100 reduce cardiorespiratory risks and expand life expectancy.

Add years to your life..
- Men lived 6 years longer
- Women lived 4 years longer

More Activity, More Savings
When maintaining a healthy CRF level:

Men saved $5,000 annually in healthcare costs.

Veterans saved $15,000 annually over Veterans who didn’t maintain a healthy CRF level.

Women saved $4,000 annually in healthcare costs.

Those in the fittest quartile saved $14k more in annual healthcare costs compared to those in the lowest fit quartile.

More Activity, More Savings

For every increase of 3.5 mL/kg/min in CRF, annual healthcare costs dropped by $1,500.