

# Norwegian 4x4 Cardio Protocol

*A Simple Guide for Women Over 50 to Improve Cardiovascular Fitness*

## Why This Matters

Cardiorespiratory fitness ( $VO_2$  max) is one of the strongest predictors of longevity. Improving it supports heart health, metabolic health, endurance, and healthy aging. The Norwegian 4x4 protocol is a research-backed interval method designed to improve  $VO_2$  max.

## Workout Structure

Warm-up: 10 minutes at 50–60% HRmax  
4 rounds of:  
• 4 minutes high intensity  
• 3 minutes recovery  
Cool-down: 5 minutes  
Total workout: 35–40 minutes

## HRmax Formula

From the HUNT Fitness Study

$$HR_{max} = 211 - (0.64 \times \text{age})$$

Example:

Age 55 →  $HR_{max} \approx 176$  bpm

## Cardio Options

Incline walking  
Cycling  
Rowing  
Treadmill  
Stair climbing  
Hill walking

## Safety Note

If you have cardiovascular conditions or take medications affecting heart rate, consult your healthcare provider before beginning high-intensity training.

## Heart Rate Zones

- Warm-up & cool-down  
50–60% HRmax
- Recovery intervals  
60–70% HRmax
- High-intensity intervals  
85–95% HRmax

These higher intensities stimulate improvements in  $VO_2$  max and cardiovascular fitness.

## Total workout: 35–40 minutes

Build an aerobic base first.

For the first 6–8 weeks train at **65–75% HRmax** before introducing Norwegian 4x4 intervals.

## Track Your Heart Rate

Use a device that measures heart rate:

- Polar chest strap monitor
- Apple Watch or Garmin watch
- fitness tracker

Beta blockers may reduce HRmax.

## Frequency

Start 1–2 sessions weekly

Build to **2–3 sessions per week** with recovery days.

## Share With a Friend

Know someone who wants better heart health and endurance?

Forward this guide and try the protocol together.