Your Customized Exercise Prescription

Your CPET (cardiopulmonary exercise test) measures the exact heart-rate landmarks that define your personal training zones — your anaerobic threshold (AT), your peak heart rate, and, if present, your Inducible Threshold (IT). Your prescription is built around those numbers, not a generic formula.

Two kinds of cardio regimens make up the prescription:

- **Continuous Aerobic Exercise Training (CAET):** steady-paced work in Zone 2 that builds your aerobic base.
- **High-Intensity Interval Training (HIIT)**: short, hard intervals in Zone 3 (and Zone 4 if appropriate) that raise your peak fitness.

This handout gives you the framework, the zone targets, and a sample week for your profile.

Your Four Zones

Zone	How it feels	What it's for
1	Easy. Conversational	Warm-up, cool-down, active recovery
2	**Brisk walk. Full sentences**	**The foundation. Build your aerobic base, mitochondria, fat-burning. CAET lives here**
3	Hard. Short phrases	Sub-peak interval work. Lactate tolerance
4	Very hard. Can't talk	Near-peak HIIT. Raises peak VO_2

Important — If your CPET shows an Inducible Threshold (IT)

Your Zone 2 target moves up to the IT (it's the most therapeutic intensity for you), and prolonged Zone 4 work is paused until follow-up testing shows the IT has reversed. Short intervals (2–3 minutes) crossing briefly into Zone 4 are fine. The goal is to reverse the IT first; then you can add back the harder intervals.

Why it matters: pushing into Zone 4 while the IT is present puts you in a range where the left ventricle is not getting enough oxygen. The benefits get blunted, and the risks (arrhythmia, myocardial damage over time) go up. Reverse first, push later!

CAET — How to Execute Zone 2

Zone 2 is the foundation. It only works when your heart rate stays inside a tight range, ideally for 30 minutes or longer.

- Use a treadmill, stationary cycle, or elliptical for exercise sessions with a tightly structured HR range. Outdoor walking and other activities produce variable HR responses and will not have the same beneficial effects as HR being continuously in the optimal zone for improving endothelial/mitochondrial function as well as fat burning
- Use the machine's heart-rate monitor (chest strap is best) and cross check with your wearable. If there is a discrepancy, the machine is more likely to be accurate
- Adjust the speed and elevation until your HR sits in your Zone 2 target at a brisk-walk pace. Write the settings down
- After that, you don't have to watch HR every minute — just enter the settings and walk for 30+ minutes; similar for other types of exercises

Practical tip — "Going for a walk" is not the same as Zone 2

Casual outdoor walks fail to hold the right heart rate - terrain varies, pace varies, and wrist wearables drift. If your wearable says your HR jumps from Zone 1 to Zone 4 in seconds, that's the device, not your heart. Use the equipment monitor.

HIIT — How to Add Intervals

HIIT is the most efficient stimulus for raising your peak fitness (Peak VO2). The reference protocol is the Norwegian 4×4; shorter interval protocols are possible, pick the one that suits you:

- 10-minute warm-up in Zone 1–2
- 4 minutes hard (Zone 4 or, if you have an IT, Zone 3 only)
- 3 minutes easy (Zone 2)
- Repeat the 4-minute / 3-minute cycle four times
- 5–10-minute cool-down
- Total: ~40–50 minutes. Do this 2–3 times per week, not on back-to-back days
- If you have an IT, your intervals are capped at 2–3 minutes in Zone 4 (safety)

Important — Don't do HIIT until you've built a base

If you've been sedentary, do not start with HIIT — complete the full 12-week Archetype A starter plan first. If you're already moderately active, build at least 4–6 weeks of consistent Zone 2 before adding intervals. Injury risk drops sharply, and the bigger fitness gains come faster than you'd expect.

Archetype A — Just Starting

If you've been sedentary or have less than 3 days/week of consistent aerobic activity. Goal: get to 150 min/week of Zone 2 over 12 weeks, no HIIT yet.

Phase	Weeks	Sessions/week	Duration	Zone
Foundation	1–4	3	20 → 30 min	Low Zone 2
Build	5–8	4	30 → 40 min	Zone 2 (dial-in)
Consolidate	9–12	4–5	40 min	Zone 2 (full)

Sample week (Weeks 1–4)

- Mon - Treadmill, Zone 2, 25 min
- Tue - Rest or 15 min mobility
- Wed - Treadmill, Zone 2, 25 min
- Thu - Rest
- Fri - Treadmill, Zone 2, 25 min
- Sat - Optional 20-min easy walk (counts as bonus, not the prescription)
- Sun - Rest

Archetype B — Already Active

If you train at least 3 days/week consistently and have a CPET Peak VO_2 ≥ 85% of predicted. Goal: combine Zone 2 (CAET) with HIIT in a 4:1 or 3:2 distribution

Element	No IT	IT Present
CAET (Zone 2)	3–4 sessions/week, 40–60 min, below HR@AT	3–4 sessions/week, 40–60 min, at HR@IT (therapeutic)
HIIT	2 sessions/week: 4×4 or shorter intervals	1–2 sessions/week: not more than 2–3 min intervals in Zone 4
Strength	2 sessions/week, full body	Same
Rest/recovery	1 full rest + 1 Zone 1 day	Same

Sample week — no IT

- Mon - Zone 2, 50 min treadmill
- Tue - HIIT (Norwegian 4×4), ~40 min total
- Wed - Zone 2, 45 min cycle
- Thu - Strength, 45 min
- Fri - Short-interval HIIT (8 × 30s/60s), ~25 min
- Sat - Long Zone 2, 60–75 min
- Sun - Rest or Zone 1 walk

Sample week — with IT

- Mon - Zone 2 at IT-anchored HR, 50 min
- Tue - Strength, 45 min
- Wed - Zone 2 at IT-anchored HR, 50 min
- Thu - Modified intervals: 4–6 × (Zone 3 / 2-3 min max in Zone 4)
- Fri - Zone 2 at IT-anchored HR, 50 min
- Sat - Long Zone 2, 60 min. No surges above IT
- Sun - Rest or Zone 1 walk

Archetype C — Athlete (80/20 Polarized)

If you train 6+ sessions per week and 6+ hours per week. Goal: keep 80% of training time in Zone 2 and 20% in Zone 3–4. The 80/20 distribution is what elite endurance athletes do and the evidence consistently favors it over threshold-heavy training

Important — Athletes are not exempt from the IT rule

If your CPET shows an IT, the 80/20 plan still applies - but the 20% high-intensity work is restricted to Zone-3 (with short intervals of 2-3 min in Zone 4) until follow-up testing documents the IT has improved or reversed. The most common cardiovascular diagnosis in master athletes is atrial fibrillation, driven largely by ischemic heart disease that was missed on standard testing. We pause Zone 4 work to keep that door closed

Sample week — no IT

- Mon - Zone 2, 75 min outdoor cycle or treadmill
- Tue - HIIT 4×4, 50 min total
- Wed - Zone 2, 90 min
- Thu -Strength, 60 min
- Fri - Zone 2 recovery, 60 min
- Sat - Long Zone 2 (LSD), 2–3 hours
- Sun - Short-interval HIIT or hill repeats, 35–45 min

Sample week — with IT

- Mon - Zone 2 at IT-anchored HR, 75 min
- Tue - Strength, 60 min
- Wed - Zone 2, 90 min. No surges
- Thu - Modified intervals: 6 × (Zone 3 / 2-3 min max in Zone 4)
- Fri - Zone 2, 60 min
- Sat - Long Zone 2, 2 hours. No surges above IT
- Sun - Rest or Zone 1 ride

When to Stop and Call Your Doctor

Stop the session immediately and seek medical attention for any of the following:

- Chest pain, pressure, or tightness — especially with sweating, jaw or arm radiation, or nausea
- Unusual shortness of breath out of proportion to the workload
- Dizziness, light-headedness, near-fainting, or fainting
- Palpitations or a sudden change in heart rate that can't be explained by the workload
- New calf pain that doesn't resolve with rest
- Sharply elevated or falling blood pressure (if monitored)

Modify the session, don't push through, if

- Your HR is above your prescribed ceiling for any extended period
- RPE (rating of perceived exertion) is higher than the session calls for
- The equipment HR and your wearable disagree by more than a 5 beats per minute re-strap or use the equipment number
- You're acutely ill, fevered, or under-slept

Quick reference

Reassessment CPET	Every 12 months (every 6 months if an IT is present until reversal is documented)
Best HR source	Chest strap > equipment monitor > wrist wearable
Re-dial frequency	Every 4–8 weeks as you get fitter, and after any new CPET
Strength training	Two sessions per week, moderate load, full-body movements
Skip HIIT if	Sedentary (first 12 weeks); newly active (first 4–6 weeks); unstable angina; decompensated HF; recent MI; resting BP > 180/110