



METABOLISM-U PERFORMANCE BLUEPRINT SERIES

ZONE 2 vs HIIT vs SIT:

CARDIOVASCULAR TRAINING FOR METABOLIC HEALTH & LONGEVITY

1 WHAT ARE THE DIFFERENCES?

ZONE 2



- 60–70% MHR
- Conversational pace
- Fat as primary fuel

HIIT



- 75–90% MHR
- Intervals (hard + recovery)
- Mixed fuel (carbs + fat)

SIT



- 90–100% MHR
- All-out effort
- Short bursts, full recovery
- Carbs (glycogen) as primary fuel

5 METABOLIC ADVANTAGES

ZONE 2



- ↑ Mitochondrial density
- ↑ Fat oxidation
- ↑ Aerobic endurance
- Supports metabolic flexibility
- Lower stress, easier recovery

HIIT



- ↑ VO₂ max
- ↑ Insulin sensitivity
- Burns more calories in less time
- Improves aerobic & anaerobic capacity

SIT



- Maximally stimulates fast-twitch fibers
- Rapid ↑ in VO₂ max
- Strong hormonal & metabolic stimulus
- Preserves power & athletic capacity

2 ZONE 2 EXAMPLES



Brisk Walking



Light Cycling



Steady Treadmill



Swimming (Easy Pace)



Rowing (Moderate)

✓ Talk comfortably in full sentences

6 WEEKLY STRUCTURE FOR AGE 50+



ZONE 2
3–5 DAYS/WEEK
(30–60 MIN)



HIIT or SIT
1–2 DAYS/WEEK



RESISTANCE TRAINING
3–5 DAYS/WEEK

✓ Balance intensity with recovery

3 HIIT EXAMPLES



1 min Run /
2 min Walk



Bike Intervals



Rowing Intervals



Stair Climbing Intervals

✓ Challenging but sustainable across intervals

7 SAFETY & BEST PRACTICES



Start Gradually



Warm-Up & Cool-Down



Hydrate Properly



Avoid Excess HIIT/SIT



Consult Your Healthcare Provider



Consider a Trainer Initially

4 SIT EXAMPLES



10–20 sec
All-Out Sprints



Assault Bike Bursts



Hill Sprints



Track Sprints

✓ Max effort. You should not be able to talk.

8 COMMON MISTAKES



All Workouts at "Medium-Hard" Intensity



Skipping Zone 2



Too Much HIIT/SIT



Poor Recovery



Ignoring Fatigue & Overtraining Signals

9 HOW TO DETERMINE MAX HEART RATE & UNDERSTAND ZONES

A. ESTIMATING MAX HEART RATE (MHR)



Max Heart Rate (MHR) ≈ 220 – Age

Example: Age 65
220 – 65 = ~155 bpm

This is an estimate—
not exact.

B. HEART RATE TRAINING ZONES (BASED ON % OF MAX HEART RATE)



ZONE 1
50–60%
RECOVERY

Very light activity



ZONE 2
60–70%
FAT-BURNING/
AEROBIC BASE

Comfortable pace



ZONE 3
70–80%
MODERATE/
TEMPO

Harder, limited talking



ZONE 4
80–90%
HIGH INTENSITY

Used in HIIT



ZONE 5
90–100%
MAX EFFORT

Used in SIT

C. PRACTICAL EXAMPLE (AGE 65)

Estimated MHR = 155 bpm

Zone 2: ~93–108 bpm

Zone 3: ~109–124 bpm

Zone 4: ~124–140 bpm

Zone 5: ~140–155 bpm

D. SIMPLE WAYS TO MONITOR



Use a heart rate monitor or smartwatch



Use the "Talk Test" (see above)

Build your base. Add intensity strategically. Train for longevity.

Information provided is for educational purposes only and it's advisable to discuss any implementation of nutritional or fitness plans with your personal healthcare provider.

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