

Incremental exercise test with measurement of blood lactate on a cycle ergometer

This document is a quick guide informed by the comprehensive test protocol document

Pre-Test

- Review test protocol parameters e.g. initial power, increment change, stage length
- Prepare equipment e.g. calibrate bike/power metre, lactate analyzer, recording sheet
- Ensure athlete has followed pre-test instructions, has medical clearance and signed consent
- Explain the test, record additional contextual and environmental data on the recording sheet
- Obtain body mass (nearest 0.1 kg) without shoes, prostheses or mobility aids, fit with heart rate monitor and fit to bike
- Athlete warms up at a low intensity
- Tester confirms starting workload following athlete warm up

Test Execution

1. Start initial workload and stopwatch when athlete has reached target cadence with little resistance.
2. At the end of each minute record heart rate
3. In the last 30 seconds of the stage:
 - Record cadence and rating of perceived exertion
 - Prepare to acquire a blood sample
4. In the last 10 seconds of the stage:
 - Acquire blood sample
 - Increase load for following stage
5. Document any technical concerns e.g. late or invalid blood samples
6. Repeat steps 2-5 until test termination
 - If maximal test is performed record additional parameters at test termination e.g. peak RPE, peak heart rate, total test time, lactate, and power output

Post-Test

- Refer to test protocol for recovery guidelines e.g. active or passive recovery, post lactates
- Clean puncture site and apply bandage
- Ensure athlete is adequately recovered before leaving the space
- Clean and disinfect equipment as per health and safety requirements