FIRSTBEAT

FIRSTBEAT SPORTS · QUICK GUIDE

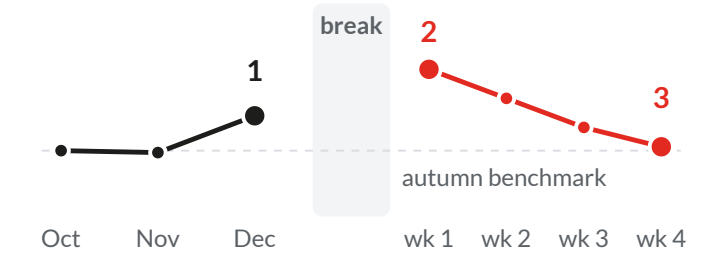
# Fitness Testing Around the Winter Break: Step by Step

Three tests, three questions: before the break, the first day back, and every week of the rebuild



4 min read · Submaximal Fitness Test (SMFT) · Soccer · 2026

# The plan in one picture




1 last full week before the break (often fatigued)
2 first day back (expect it higher)
3 weekly, follow the trend back to the line

A higher heart rate at the same speed means different things around the break: in late December it is likely fatigue, on the first day back it is more likely detraining. One published case: after a four-week break with two weeks of no endurance work, a Bundesliga squad came back with HRex 5.3 bpm higher on the same run.

# 2–3 weeks before · Lock the benchmark

**Do**

Test in your usual slot. Put the SMFT trend and the QRT 7-day average side by side

**Look**

Is the result above the autumn trend while QRT is falling?

**Decide**

Above the trend with QRT falling: likely fatigue, so the autumn tests are the benchmark. On the trend with QRT normal: a clean benchmark

# Before players leave · Agree the break

**Do**

Agree what the break looks like with each player

**Know**

Two weeks with no endurance work costs fitness; two or three easy aerobic sessions a week holds most of it

Message for the players: "Two or three easy aerobic sessions a week over the break. We test on the first day back."

# Day 1–2 back · Measure the starting point

**Do**

Test in the slot you will keep through January

**Look**

Each player against their own autumn level

**Decide**

Nothing yet. One result shows where each player starts

| | |
|---|---|
| Higher | expected start · follow weekly |
| Far above squad | check the test · watch the trend |
| Same or lower | fitness held, or fatigue cleared |

# Weeks 1–3 back · Rebuild week by week

**Do**

Test weekly, same day, same warm-up

**Look**

Is the squad average still coming down, and who is following it more slowly?

**Decide**

The slower players are the ones to discuss with the coaching staff

> Chronic load is low after a break, so the acute-to-chronic ratio reads high for everyone. The SMFT and QRT trends give a fairer picture.

# Back to the in-season rhythm

When the squad is back around its autumn level, return to testing at least every second week. Keep the day and warm-up consistent. MD-4 or MD-3 often work well, but consider the constraints of your own setting.

**Team Summary**

| | Peak %HRmax (60s) 50% 100% | value | prev. | HR Recovery (60s, %) 10% | value | prev. |
|---|---|---|---|---|---|---|
| P. **Graven** | | **88.6%** | -6.2% | | **26%** | +3% |
| N. **Ekua** | | **83.7%** | -6.7% | | **21%** | +8% |
| D. **Novak** | | **81.1%** | -3.0% | | **18%** | -2% |
| M. **Cowl** | | **78.9%** | -3.9% | | **23%** | +3% |
| L. **Browne** | | **78.7%** | -5.7% | | **18%** | +7% |
| A. **Canuci** | | **78.7%** | -4.8% | | **35%** | +12% |

# Fatigue or detraining?

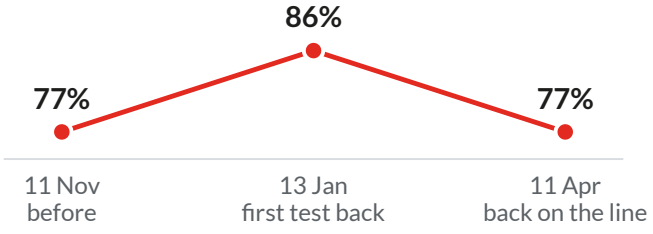
| | QRT falling, load high | QRT normal, load low |
|---|---|---|
| ↑ **HRex** | **Likely fatigue**<br>late Dec · rest; benchmark = autumn | **Likely detraining**<br>first tests back · follow the trend |
| ↓ **HRex** | **Likely freshness**<br>after a tired Dec · keep testing | **Likely adaptation**<br>rebuild weeks · the work lands |

If a result looks odd, check the test was done right before reading anything into it. An indoor test after a month outdoors starts a new baseline.

# One squad, one December

Example data from the Firstbeat Sports demo account (Castlemere Kickers). The team QRT 7-day average, 60–70% for most of the season, falls to 42% around New Year after nine December matches. An SMFT in the last week of December would have been taken on a tired squad.

HARRY WHITCOMBE · PEAK %HRmax, SAME RUN




The player example is a knee injury rather than a holiday, but the shape is one a break often produces: a jump on the first test back, then a gradual return toward the earlier level.

# Checklist

☐ **2–3 weeks before**
Benchmark chosen: December test or autumn tests

☐ **Before players leave**
Break plan agreed and sent

☐ **Day 1–2 back**
Starting point measured in the January slot

☐ **Weeks 1–3 back**
Weekly test; slower players discussed

☐ **Back in rhythm**
Every second week, same day and warm-up

# FAQ

**The first test back is higher for everyone. Did we do something wrong?**
No. A higher result after a break with little running is expected. The weeks that follow show who lost more and how long it takes to get it back.

**Our break is only ten days. Is it worth testing?**
Yes. The December fatigue question is the same, and knowing where the squad stands before the first match is worth having.

**What about hockey and basketball?**
Same logic for a Christmas or international-window break; the run becomes a fixed-workload bike test or a shuttle on the court.

Want a second pair of eyes on your plan for the break? Book a free 30-minute Team Load Review with a Firstbeat sports scientist.

**Book your free review**

content.firstbeat.com/team-load-review-firstbeat-sports

> A single result is a data point; a pattern is a signal.

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Sources: Firstbeat sports science team · Buchheit et al., Submaximal fitness testing in team sports (SPSR 266; Adelaide Crows and Hoffenheim cases; Ruf et al. 2024) · Firstbeat Sports demo account

firstbeat.com/team-solutions · sports@firstbeat.com