

## Twenty states, and what to do

The wall chart. Sleep and load are the inputs, recovery is the output. Three reads sit on the right: adaptation stimulus (how flexibly the system responds), progression (whether the athlete is gaining, holding, or losing), and a balance triangle (one dot per corner, so you see the shape at a glance).

BADGES

LOAD

ADAPTATION STIMULUS

BALANCE TRIANGLE

Sleep and recovery:

HIGH

LOW

OK

VAR

· and on recovery

GOOD

MID

BAD

· Load carries no colour. A high ratio is not good and a low one is not bad, it is a trade.

HIGH

 flexible · 

MID

 narrowing · 

LOW

 blunted

PROGRESSION

IMPROVING

 · 

MAINTAINING

 · 

DETRAINING

 · 

VARIABLE

● blue dot = sleep

 · 

● teal dot = recovery

 · 

● yellow dot = load

THE WALL CHART · TWENTY STATES IN FIVE GROUPS

SLEEP & LOAD IN · RECOVERY OUT · THREE READS RIGHT

| SCENARIO                                     | SLEEP · CONSISTENCY                            | LOAD · RATIO                                    | RECOVERY · SIGNAL                                                         | TIMEFRAME                    | MOST LIKELY                                                                                                            | WHAT YOU DO                                                                                                   | ADAPTATION STIMULUS                   | PROGRESSION                                            | BALANCE |
|----------------------------------------------|------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------|---------|
| TRAINING DRIVEN · THE INPUTS EXPLAIN IT      |                                                |                                                 |                                                                           |                              |                                                                                                                        |                                                                                                               |                                       |                                                        |         |
| Thriving                                     | <div>HIGH</div> <div>85% plus</div>            | <div>HIGH</div> <div>ratio 1.0 to 1.3</div>     | <div>GOOD</div> <div>HRV stable, RHR low</div>                            | Sustained                    | Adapting well. The peak state you are training toward.                                                                 | <b>Hold the plan.</b> Do not add load just because the light is green.                                        | <div>HIGH</div> <div>flexible</div>   | <div>IMPROVING</div> <div>gaining fitness</div>        |         |
| Functional overreaching                      | <div>OK</div> <div>70 to 85%</div>             | <div>HIGH</div> <div>ratio 1.3 to 1.5</div>     | <div>MID</div> <div>HRV 10 to 20% below</div>                             | Days, planned block          | Intended overreach. The dip is the point of the block.                                                                 | <b>Continue.</b> Expect supercompensation after the deload.                                                   | <div>HIGH</div> <div>responsive</div> | <div>IMPROVING</div> <div>builds after deload</div>    |         |
| Non functional overreaching                  | <div>OK</div> <div>70 to 85%</div>             | <div>HIGH</div> <div>above 1.5, held</div>      | <div>BAD</div> <div>HRV 30% or more below</div>                           | Over 2 to 3 weeks, perf down | Overshot the block. The plan is now wrong.                                                                             | <b>Deload now.</b> Cut volume 30 to 50%.                                                                      | <div>LOW</div> <div>blunting</div>    | <div>DETRAINING</div> <div>stalled, declining</div>    |         |
| Digging a hole                               | <div>LOW</div> <div>below 40%</div>            | <div>HIGH</div> <div>above 1.5</div>            | <div>BAD</div> <div>HRV down, RHR up</div>                                | Ongoing                      | Overload plus sleep debt, compounding.                                                                                 | <b>Pull load and fix sleep together.</b> One without the other fails.                                         | <div>LOW</div> <div>blunting</div>    | <div>DETRAINING</div> <div>not converting</div>        |         |
| Central nervous system fatigue               | <div>OK</div> <div>normal, deep sleep up</div> | <div>HIGH</div> <div>heavy or intense</div>     | <div>MID</div> <div>score down, RHR up, HRV down, deep sleep spikes</div> | Days after heavy neural work | CNS fatigue from heavy or high intensity work. The body ramps up deep sleep to repair the nervous system.              | <b>Cut intensity and neural load, keep easy aerobic volume.</b> The deep sleep spike is the repair happening. | <div>MID</div> <div>protective</div>  | <div>MAINTAINING</div> <div>recovers with rest</div>   |         |
| UNDER TRAINING · LOW LOAD, AND WHAT IT MEANS |                                                |                                                 |                                                                           |                              |                                                                                                                        |                                                                                                               |                                       |                                                        |         |
| Taper, peaked                                | <div>HIGH</div> <div>85% plus</div>            | <div>LOW</div> <div>ratio 0.6 to 0.8</div>      | <div>GOOD</div> <div>RHR quiet, HRV high</div>                            | Planned, 1 to 3 weeks out    | Freshening for a race. Load is low by design.                                                                          | <b>Trust it.</b> Resist the urge to add a session.                                                            | <div>HIGH</div> <div>sharp</div>      | <div>MAINTAINING</div> <div>held, sharpening</div>     |         |
| Detraining                                   | <div>HIGH</div> <div>85% plus</div>            | <div>LOW</div> <div>below 0.8, unplanned</div>  | <div>GOOD</div> <div>strong, but fitness falling</div>                    | Weeks, unplanned             | Losing fitness. Reads identical to a taper as a snapshot.                                                              | <b>Add stimulus.</b> Green does not mean fit. Check intent versus the plan.                                   | <div>HIGH</div> <div>healthy</div>    | <div>DETRAINING</div> <div>fitness falling</div>       |         |
| Hidden debt                                  | <div>LOW</div> <div>below 40%</div>            | <div>LOW</div> <div>below 0.8</div>             | <div>OK</div> <div>still holding, for now</div>                           | Early                        | Recovery holds only because demand is light. The debt is hidden.                                                       | <b>Fix sleep before load rises.</b> The bill comes due when you build.                                        | <div>MID</div> <div>narrowing</div>   | <div>MAINTAINING</div> <div>flat, low demand</div>     |         |
| Sleep bottleneck                             | <div>LOW</div> <div>low, quality poor</div>    | <div>LOW</div> <div>will not hold above 1</div> | <div>MID</div> <div>dips every time load rises</div>                      | Weeks, load will not climb   | Sleep and recovery cannot service more training, so chronic load stalls. Push harder and recovery breaks, not fitness. | <b>Fix sleep and recovery first, that raises the ceiling.</b> Hold load steady.                               | <div>LOW</div> <div>capped</div>      | <div>MAINTAINING</div> <div>capped, cannot climb</div> |         |

| Scenario                                                    | Sleep · Consistency                            | Load · Ratio                                             | Recovery · Signal                                                           | Timeframe                  | Most Likely                                                                                                      | What You Do                                                                                                                            | Adaptation Stimulus                         | Progression                                            | Balance                                                                               |
|-------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------|
| EXTERNAL · THE INPUTS ARE CLEAN, SO LOOK OUTSIDE THE SYSTEM |                                                |                                                          |                                                                             |                            |                                                                                                                  |                                                                                                                                        |                                             |                                                        |                                                                                       |
| Borderline immune stress                                    | <div>OK</div> <div>near normal</div>           | <div>OK</div> <div>ratio 0.8 to 1.3</div>                | <div>MID</div> <div>HRV slightly down, RHR slightly up</div>                | Feels off, not sure        | Immune system may be fighting something. Not sick yet, but the athlete senses it coming.                         | <b>Keep the plan and the volume.</b> Cut high intensity and gym only. Do not stop cold, an abrupt halt can tip them into full illness. | <div>MID</div> <div>narrowing</div>         | <div>MAINTAINING</div> <div>hold through it</div>      |    |
| Illness onset                                               | <div>VAR</div> <div>ok, sleep fragmented</div> | <div>VAR</div> <div>normal, not the cause</div>          | <div>BAD</div> <div>RHR up, RR up, HRV down, together</div>                 | Sudden, 1 to 3 days        | Infection incoming. Respiration is often the earliest tell.                                                      | <b>Rest. Do not train through.</b> Catching it a day early saves a week.                                                               | <div>MID</div> <div>acute reaction</div>    | <div>VARIABLE</div> <div>paused, brief loss</div>      |    |
| Emotional or life stress                                    | <div>OK</div> <div>near normal</div>           | <div>OK</div> <div>ratio 0.8 to 1.3</div>                | <div>MID</div> <div>HRV down, RHR near normal</div>                         | Days                       | Cognitive or emotional load. HRV integrates all stress, not just training.                                       | <b>Ask the athlete.</b> Reduce intensity, protect sleep, do not add training stress.                                                   | <div>HIGH</div> <div>responsive</div>       | <div>MAINTAINING</div> <div>hold, ease intensity</div> |    |
| Travel or altitude                                          | <div>LOW</div> <div>drops, timing shifts</div> | <div>LOW</div> <div>low, travel week</div>               | <div>MID</div> <div>RHR up, HRV down, SpO2 dips high up</div>               | About 1 day per time zone  | Circadian or hypoxic stress, not training fatigue.                                                               | <b>Ease 1 to 2 days.</b> Expect normalisation. Use morning light to re entrain.                                                        | <div>HIGH</div> <div>responsive</div>       | <div>VARIABLE</div> <div>blip, then normal</div>       |    |
| Menstrual, luteal phase                                     | <div>OK</div> <div>near normal</div>           | <div>OK</div> <div>ratio 0.8 to 1.3</div>                | <div>MID</div> <div>HRV down 5 to 15%, cyclical</div>                       | Days 15 to 28 of the cycle | Hormonal phase, not fatigue. Can cross the smallest worthwhile change alone.                                     | <b>Treat by symptoms.</b> Prescribe to how she feels and what she can do that day, not to the HRV number.                              | <div>HIGH</div> <div>responsive</div>       | <div>VARIABLE</div> <div>not affected</div>            |    |
| Low energy availability                                     | <div>LOW</div> <div>poor, wakes often</div>    | <div>VAR</div> <div>can look normal</div>                | <div>BAD</div> <div>HRV low, RHR odd, mood and weight down</div>            | Chronic, weeks to months   | Under fuelling or deep under recovery. High risk. Recovery cannot work without energy.                           | <b>Refer.</b> Restore fuelling and recovery before touching the training load.                                                         | <div>LOW</div> <div>flat, blunted</div>     | <div>DETRAINING</div> <div>losing, high risk</div>     |    |
| THE SIGNAL IS LYING · READ THE NUMBER, NOT THE ATHLETE      |                                                |                                                          |                                                                             |                            |                                                                                                                  |                                                                                                                                        |                                             |                                                        |                                                                                       |
| Single day noise                                            | <div>OK</div> <div>fine</div>                  | <div>OK</div> <div>fine</div>                            | <div>VAR</div> <div>one isolated HRV dip</div>                              | One off                    | A confounder. Alcohol, a late meal, a poor measurement.                                                          | <b>Retest tomorrow.</b> Never act on a single reading against the baseline.                                                            | <div>HIGH</div> <div>fine</div>             | <div>VARIABLE</div> <div>not affected</div>            |    |
| Saturation false low                                        | <div>OK</div> <div>good</div>                  | <div>HIGH</div> <div>high, tolerated</div>               | <div>VAR</div> <div>HRV flat or low in a very fit athlete</div>             | Ongoing                    | In very fit athletes HRV flattens out and stops tracking fatigue.                                                | <b>Go by the load ratio and resting heart rate.</b> When those look fine, the flat HRV is not a problem.                               | <div>VAR</div> <div>flat from fitness</div> | <div>IMPROVING</div> <div>still gaining, hidden</div>  |  |
| Fatigue rebound, false high                                 | <div>OK</div> <div>near normal</div>           | <div>HIGH</div> <div>above 1.5, held</div>               | <div>VAR</div> <div>HRV reads high, but perf falling, RHR creeping up</div> | After a long hard block    | Deep fatigue can push HRV up instead of down. High HRV with falling performance is a warning, not a green light. | <b>Do not add load.</b> Go by performance and how the athlete feels, not the high number.                                              | <div>LOW</div> <div>erratic, false</div>    | <div>DETRAINING</div> <div>deep fatigue, falling</div> |  |
| NOT A RECOVERY PROBLEM AT ALL                               |                                                |                                                          |                                                                             |                            |                                                                                                                  |                                                                                                                                        |                                             |                                                        |                                                                                       |
| Stalling with clean recovery                                | <div>OK</div> <div>fine</div>                  | <div>HIGH</div> <div>cardio and strength both high</div> | <div>GOOD</div> <div>nothing wrong on the recovery page</div>               | Weeks, power or pace stuck | Adaptation has stalled despite clean signals. Often not enough fuel or deep sleep to convert the work.           | <b>Back to basics.</b> Raise sleep and recovery, protect deep sleep, increase fuelling. If still stuck, retest thresholds.             | <div>HIGH</div> <div>flexible</div>         | <div>MAINTAINING</div> <div>plateaued</div>            |  |
| Athlete says bad, data says fine                            | <div>OK</div> <div>near normal</div>           | <div>OK</div> <div>ratio 0.8 to 1.3</div>                | <div>GOOD</div> <div>ok on every signal</div>                               | Now                        | A blind spot. Something real that Beoflow cannot see.                                                            | <b>Trust the athlete.</b> The report outranks the model. Investigate outside the data.                                                 | <div>HIGH</div> <div>flexible</div>         | <div>VARIABLE</div> <div>unknown, investigate</div>    |  |